GRUMMAN plane news

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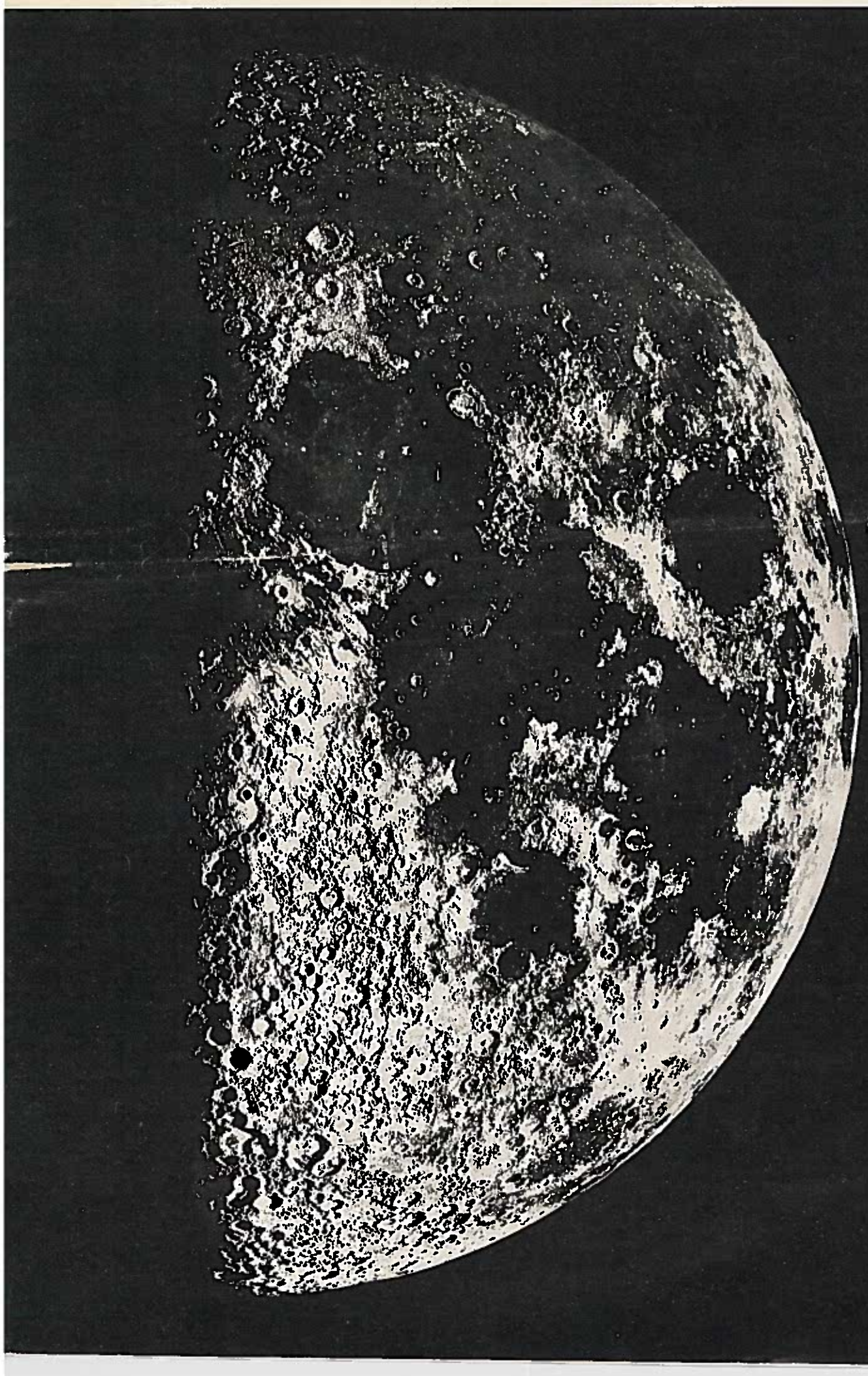


APOLLO 17: END OF THE BEGINNING

"In the beginning. . . ."

When was that? When did the age of space start? For America it began in 1957 . . . in stunned reaction to a tiny satellite pitched into space by the Soviet Union. And later, in the early Sixties, it was President John F. Kennedy who dreamed the impossible dream — of Americans making the first manned landing on the moon.

It was an astonishing goal, one that galvanized a nation. And in 1969, two men, Neil Armstrong and "Buzz" Aldrin, set foot upon the lunar surface as they landed in a spider-like vehicle called the Lunar Module.

Now, just three-and-a-half years later, after ten astronauts have walked upon the moon, two more are to land. And that's the end, the last of the Apollo missions.

The end seems as unbelievable as the beginning. . . .

Fifty-nine flying club members take Traveler, Trainer on hop

Sporty traveler. **Vince Holder, operations director for GACE, talks with pilot Don Shepperd of American Aviation following flight at Calverton. Thirty-one GACE members took this sporty four-place Traveler for trial spin.**

It was a great day for a tryout. The skies were clear, the sun shone brightly, and there standing on the taxi strip at Calverton were two of the small-plane world's prize packages: American Aviation's two-place Trainer and four-place Traveler.

And "tryout" day it was, as more than 50 members of the Grumman Aerospace Corporation Employees (GACE) Flying Club motored—some flew in—to Calverton one Saturday early last month to try their hand at the controls of the sporty little planes.

Although the flying club has a full Cessna fleet at present, GACE officials had asked American Aviation to demonstrate its products to the club following the announcement that Grumman Aerospace planned to merge its commercial aircraft activities with those of American Aviation, one of the largest producers of single-engine aircraft in the world.

Don Shepperd, domestic sales manager for American Aviation, and Bob Anderson, northeast sales manager, flew in to Bethpage early in October to give club officials and flight instructors an opportunity to check out the aircraft. The following Saturday, October 14, the planes were at Calverton for an all-hands tryout; and just about all hands had a go at them. Twenty-eight members flew the Trainer, and 31 more took the Traveler for a spin. It proved a helluva successful way for the GACE members to get acquainted with American Aviation.

In case you're interested: the GACE Flying Club is a non-profit club incorporated under New York State laws, with membership open to Grumman employees, their immediate families, and "job shoppers" or vendor employees who are on permanent assignment to Grumman. The club has close to 300 members, owns eight aircraft, a flight training simulator, offers flight and ground instructions, and, to borrow an expression, is a "going" organization. Should you be interested in joining, contact president John Pereira, Computer Lab, Plant 5, Ext. 7244.

In reviewing the planned merger of Grumman Aerospace's commercial aircraft activities with those of American Aviation, Vice President Jack Bierwirth noted that for the last three months of 1972 Grumman Gulfstream and Ag-Cat programs will be operating as separate cost centers—independent from Grumman Aerospace—and the production and financial figures for these last three months will aid in the setting up of the merged operation. At the end of the year, Bierwirth pointed out, the Gulfstream and Ag-Cat programs will merge with American Aviation to form Grumman American Aviation Corporation, an 80 percent owned subsidiary of Grumman Corporation.

Matchup. **American's two-place Trainer (R) is parked alongside GACE Cessna Skyhawk during 'fly-in' at Calverton. (Photos by Ed Finnick)**

Increased share of market

"Some people have wondered why Grumman would want to merge its commercial aircraft operations with American Aviation," Bierwirth said. "In the last few years, Amercian Aviation has developed two good small planes and has in the works two additional planes. Each year," he continued, "American has increased its share of the market, which, although still small, will mean the production and sale of about 750 planes in 1973. For Grumman to have done this on its own would have been very difficult and would necessarily have taken a fair amount of time. Through the merger, Grumman has gained an immediate position in the general aviation field and together, Grumman and American Aviation have an opportunity to go on to become a solid competitor in the industry. The combination of Grumman's engineering capabilities and American's toe-hold in the market looks to be a highly desirable opportunity for Grumman American."

Bierwirth, who is Vice President-Finance of Grumman Corporation, stated that the Grumman American organization should immediately become a substantial member of the Grumman family, and profitability forecasts indicate that this new subsidiary will be a major contributor to the profit growth that is so important to Grumman.

If the "fly-in" and "tryout" day was any indication of future success, Grumman American is off to a good start.

Around-the-world support for A-6

Stopover. **A-6 Program Director Bill Trillo (R) takes time out on recent Southeast Asian tour for photo with Lt. Col. James Brown, commanding officer of Marine Intruder squadron VMA (AW)-533.**

As A-6 Program Director Bill Trillo put it, "There is no better way to appreciate a problem than to stand confronted with an A-6 aircraft on a jungle strip or on a flight deck to realize what it takes in men, material, and know-how to keep the 'birds' flying their scheduled missions."

Recently Trillo, Dan Collins, Deputy Program director, and Nick Scobbo, top man in Field Service, put this principle in action by making an around-the-world trip of ship and shore installations where A-6s are in use. Although the basic job of the trio was to look and listen, Scobbo got involved in helping to correct problems for members of A-6 squadrons.

Collins saw the trip as valuable. In fact, each of them saw it that way and emphasized the need for continuing direct interfacing between manufacturer and user, for only in that way does the customer get maximum value from the product.

ESO offering holiday items

Before you walk your feet off among the crowds of Christmas shoppers, you might like to investigate the gift items being stocked in all ESO flight shops. On display are name brand cookies and candy, luggage, French purses, wallets, flight type jewelry AND Apollo patches. Buy the whole set of patches and please a kid, $1.25 each.

ESO announced also that it has the POW/MIA bracelets for sale in all Employee Service offices. Most of the families of these prisoners of war and those missing in action don't know whether the victims are alive or dead. "This bracelet," says Voices in Vital America (VIVA), "honors the man whose name is inscribed . . . It should be worn with the vow that it will not be romoved until the day the Red Cross is allowed into Hanoi and can assure his family of his status and that he receives the humane treatment due all men." Nickel-plated bracelets are $2.50.

The end of the beginning: Ready Apollo 17 for Dec. 6 liftoff

The last of the Apollo missions—and probably the last American manned lunar landing for a decade or more—is to begin with an earth-shaking roar at Pad 39 at Cape Kennedy, Fla., on Wednesday, December 6, at 9:53 p.m. (EST).

If the weather cooperates, this first manned liftoff ever scheduled for evening hours could be visible within a radius of 500 miles.

Five days after launch, at 2:55 p.m. Monday, December 11, Spacecraft Commander Gene Cernan and LM Pilot Harrison (Jack) Schmitt are to touch down in the Taurus-Littrow section of the moon. It promises to be the most ticklish landing of any lunar mission for the LM is to pass over a mountain range (or massif) and set down on a plain bounded by a steep slope or cliff (or scarp).

Liftoff from the lunar surface is planned for 5:56 p.m. on December 14. Then, after joining Command Module Pilot Ron Evans in the Command Service Module and jettisoning the LM, the trio of astronauts start the journey home for splashdown in the Pacific Ocean on December 19.

Thus the bare bones of the mission plan. . . .

Better and better

Before launch on December 6, however, a lot of work must be done by Grumman's contingent at the Cape, a highly skilled and dedicated group of men and women who've seen to it that each launch is — unbelievably — better than the one before. No one lets down, as indicated by this report last week by Wiley Williams, manager of all LM Operations at the Cape:

"The tempo of LM launch operations is in high gear. Three-shift coverage is being maintained by all system elements for support of the countdown demonstration.

"Presently, final detailed systems tests are being performed. This will be the last time Engineering can evaluate all system parameters while the LM is on the ground. At completion of these systems checks, explosive devices will be installed for flight."

Williams continues:

"In the Crew Systems Bond Room, final bench checks and stowage-kit buildup is being performed on all crew provisioning items. These items will be stowed for flight Tuesday, November 28.

"Flight batteries are being activated and thoroughly checked in the LM battery lab. These items will have been installed for flight Sunday, November 26."

It's all very well planned and orderly—as, indeed, it has to be. As before, the prescription (as Grumman base manager Chuck Kroupa has always insisted) is "meticulous attention to detail."

More tasks

Countdown prep starts November 28 and runs through the 30th. The countdown begins December 1. (And from mid-November, the crew of Cernan, Schmitt, and Evans is in quarantine in order to minimize the chances of catching a virus.)

As has been the case in all previous manned missions to the moon, the crew will have more to do; and there'll be more time in which to do their jobs. And there'll be new experiments to handle.

Perhaps, a primary difference between this mission and those that have gone before is the presence in the LM crew of a geologist-astronaut: Jack Schmitt. It will help because, geologically speaking, this Apollo 17 LM-12 exploration will be the most complex one ever attempted. According to the U.S. Geological Survey, Cernan and Schmitt will "have their work cut out" in deciphering the terrain at Taurus-Littrow. In fact, the landing site was chosen for that reason, for, with the combination of highland and valley areas, it is hoped that scientists will be better able to "build a more accurate model" of the moon. They would be delighted to get data on such questions as:

- Is there any water on or in the moon?
- Was the moon's interior once hot or molten?
- Was there volcanic activity on the moon during its history?
- How—and when—were the moon's craters formed?
- Why do samples of the lunar surface, taken in different areas of the moon, seem to vary so much in age?
- Does the moon contain elements foreign to earth?

There are innumerable questions . . . all begetting further questions. For at least tentative answers (or hypotheses), equipment now stowed in the LM can be brought out on the lunar surface. There is, for example, the LRV (Lunar Roving Vehicle) with a new piece of equipment—a traverse gravimeter to measure variations in the moon's subsurface structure. Use of the gravimeter may answer the question of whether the Taurus mountains have "deep roots" or are only deposits on a largely uniform subsurface—which might afford clues as to the existence (or non-existence), long ago, of volcanic activity.

New experiments

One of the new experiments involves what is called "seismic profiling." The aim here is to find out about the physical properties of the moon. To acquire the desired data, eight explosive charges, ranging in size from one-eighth of a pound to six pounds, will be deployed. They'll be detonated sequentially 24 hours after liftoff from the lunar surface; and, with luck, six of them will be televised. The NASA also expects to be able to record the impact on the moon made by the spent LM ascent stage. And that, too, is to be televised.

Making sure. Long before Apollo 17 could be judged ready, flight hardware had to checked out. Doing part of that job were the men scheduled to land on the moon, Harrison (Jack) Schmitt, LM pilot, and Gene Cernan, Spacecraft commander. (NASA photo)

Naturally, television will be at hand during the three, seven-hour EVAs (Extra-Vehicular Activities). That provides for two additional hours on the lunar surface, one a pre-sleep period after the third EVA, the other an hour for liftoff preparation.

Moon walk

In all likelihood, the "heart" of the mission for Cernan and Schmitt will be what has become traditional in lunar exploration: the collection of samples of soil and rocks—a particularly exciting job for geologist Schmitt. It is made even more so by indications of quite dark material in the Taurus-Littrow area—material not at hand in previous missions, which focused on the mare or plains. The dark material appears to be in the areas that are between mountains, suggesting the possibility that the moon was once covered by the "dark stuff" and somehow slid down from the mountainside. It's possible, too, that the dark material is volcanic ash. Now we may soon find out.

To get back to some experiments to

(Continued on page 5)

Timeline of Apollo 17

Event	December Date	EST
Launch	6	9:53 pm
Translunar Insertion	7	1:14 am
Lunar Orbit Insertion	10	2:49 pm
Descent Orbit Insertion #1	10	7:06 pm
Descent Orbit Insertion #2	11	1:54 pm
Lunar Landing	11	2:55 pm
Start EVA 1	11	6:33 pm
Start EVA 2	12	5:13 pm
Start EVA 3	13	4:33 pm
Lunar Liftoff	14	5:56 pm
Transearth Injection	16	6:33 pm
Transearth Coast EVA	17	About 2:33 pm
Splashdown	19	2:24 pm

East, West Coast test teams keep Tomcat on busy schedule

In the context of how the F-14 is performing, it is safe to say that the development and test programs are proceeding well. And perhaps the best capsule summary is contained in a sentence written by Navy personnel in the second NPE (Navy Preliminary Evaluation):

"F-14A continued to exhibit outstanding potential for the fighter mission within the expanded flight envelope available for NPE IIA."

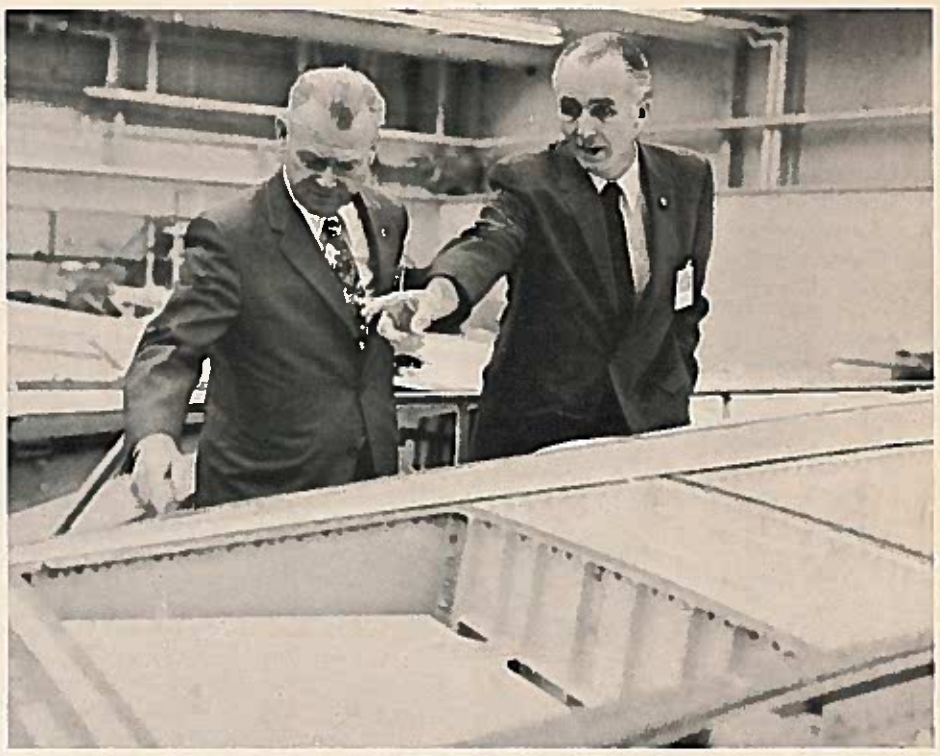
And Navy pilots who've had the opportunity to fly Tomcat have said that it's a hot plane with remarkable agility. Others, hearing of what Tomcat can do, have expressed eagerness to fly it. A biased view? Maybe. But realistically, would pilots be itching to fly the bird if it were a "bomb" or just another aircraft? It hardly seems so.

Besides, it cannot be argued that there's a thrill in flying an "unknown" when Tomcats have chalked up some 1,600 or more flight hours. After all, "the word" does spread through the Naval community. The NPEs thus far have confirmed that Tomcat is meeting or exceeding specifications, that it is a true air superiority fighter.

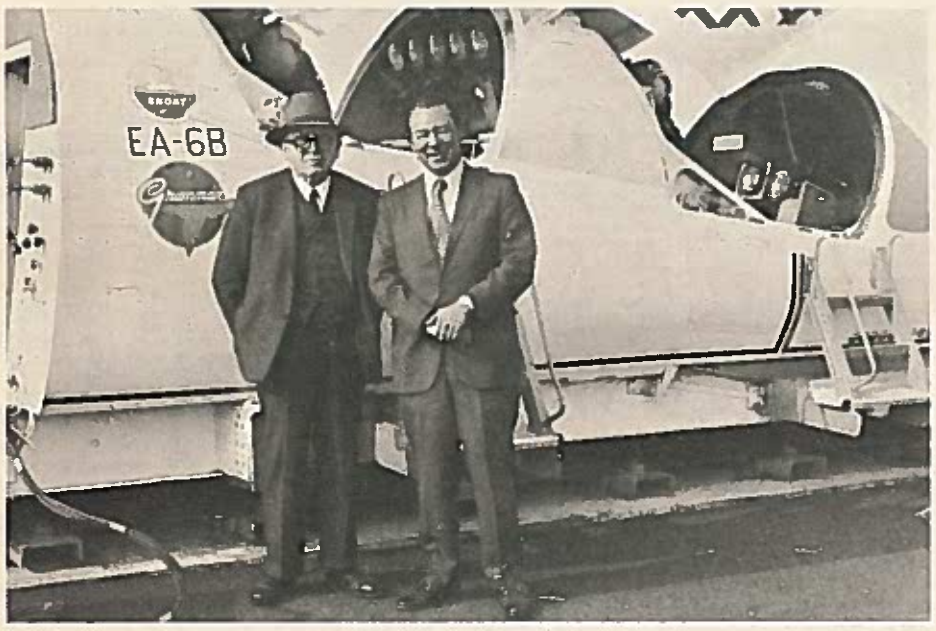
Testing is going at a good pace. The high-speed test aircraft, 1-X, has had 113 flights and had logged in 253.9 flight hours as Plane News went to press. Aircraft No. 2, the so-called low-speed, stall-test plane has been flown 140 times and put on 291.6 flight hours. The three Grumman aircraft at the test facility at Point Mugu, Calif., have made 191 flights for a total of 351.8 flight hours, and the two Tomcats bailed to Hughes Aircraft at Mugu have had 163 flights for a total of 310.6 flight hours.

The remaining flights and flight hours, of course, have been rung up at Calverton—except for a few hours put on during carrier suitability trials with Tomcat 17. And finally, Tomcat 15 has been delivered to NAS Patuxent River and aircraft 16 and 18 to NAS Miramar, Calif., and No. 20 is on the line at Calverton awaiting first flight.

Seventeen Tomcats are in flight status. That might be termed a healthy situation. . . .



Technology review. President Joe Gavin (R) and Charles J. Donlan, deputy associate administrator for NASA Manned Space Flight (Technical) Program, examine inlet duct on F-14 during its fabrication at Plant 1. Donlan was at Grumman on November 10 to review aircraft and spacecraft technology in the Company. (Photo by Bob Settles)



Up and out. Vice President Bob Miller, director of the EA-6B Program, takes time out for a photo with Sir James Martin. The two were in Northern Ireland to witness rocket sled tests on the EA-6B ejection-seat system at Martin-Baker's test facility.

Prove Prowler escape system in trials at Martin-Baker site

"Providing the utmost in safety for flight crews has been a fundamental tenet of design at Grumman since we began making airplanes," says Vice President Bob Miller, EA-6B Program director, Grumman was the first firm on this side of the ocean to employ Martin-Baker ejection seats, in F9F series fighters. The seats have subsequently been used in many first-line combat aircraft, including the F-14 and all A-6 series today. Quoting Bob Ricketts, EA-6B Escape System Project engineer for Naval Air Systems Command who witnessed the tests in Ireland, "Martin-Baker escape systems are highly regarded by the Fleet, where they have earned an excellent reputation for reliability and successful escape."

"Getting the kind of escape system performance we needed for the EA-6B was a uniquely difficult job," Miller noted. "In this airplane, we have four people sitting very close together. In case of a major emergency at any speed, the idea is to get them out without collision, entanglement, or injury and in a great big hurry. With last month's successful demonstrations at Martin-Baker, everyone can breathe a little easier."

The tests at Martin-Baker's track were supervised by Lou Popovich, Grumman's EA-6B Vehicle Project engineer and Jim Murray, Escape System engineer, who stated, "We were impressed by the Martin-Baker test facility and efficient manner in which tests were conducted. Running three tests with six successful dummy ejections in three days must be a new record."

"The new GRUEA-7 rocket seat provides safe escape for all four crew members in 1.2 seconds from initiation of the sequence, at all speeds from 80 to 600 knots," Popovich observed. The EA-6B seats are developed from the GRU-7 seats now going into A-6s, thus minimizing Fleet training and logistics requirements.

Gerry Maurer, EA-6B Operations, talking with Ed Rose, assistant program manager for Production, stated that this improved capability will be retrofitted into fleet aircraft starting this month, with three squadrons equipped by mid-January. Production aircraft coming off the assembly line in Plant 6 will have the new escape system installed starting with P-29 in January. All EA-6Bs should be provided with this capability by the end of next year.

Carrier fighter pilot leads 'monk's life without the tranquility'

"It's a monk's life without the tranquility," writes Dick Blystone of Stars and Stripes—a strange way, it would seem, to assess a pilot's life aboard an aircraft carrier in the heat of action. It's just one of the anomalies (to an outsider) that's not anomalous to the trained pilot.

For instance: "'The odds are good,' says (Lt.) Charlie Sapp. 'If you play by the rules you've got it made. My wife is in more danger driving to the supermarket.'"

It isn't bravado. To the pilots, it's realism. Just as the "monk's life" reference is, because, as Blystone puts it, the routine calls for "at least one two-hour mission a day, with two hours of briefing and one of debriefing, then a regular squadron desk job."

When Dick Cronin of Grumman Field Service sent along this true-to-life article about flying aboard a carrier, perhaps the most striking feature was some of Blystone's quotations, such as:

"'The day I come back from a mission and I'm not scared, that's the day I'm going to get scared,' says Lt. Jeff Crawford of Madison, W. Va., an Intruder pilot on the America.

'One day at a time'

"'You take one day at a time, and you figure it's going to happen to the other guy,' says Cdr. Verne Donnelly, an A-6 squadron commander from Marysville, Calif." (Donnelly, CO of VA-35, and Lt. Cdr. Ken Buell, bombardier-navigator, were shot down recently south of Hanoi.)

Or this:

"'A lot of times you're more scared of not hitting the target than you are of getting hurt,' says (Cdr. Fred) Schrupp.

There's humor, too—a humor that may be unique to the life of a pilot. Just before a dangerous flight, the "kidding" went this way:

"Hey, Snuffy, can we have your stereo gear? Better leave us the keys to your locker."

As to the war and the politics of it, Lt. Sapp is reported to have said: 'I feel I'm doing the right thing,' and 'I'd like to think that everybody back home felt the same way, but I know they don't. It isn't antagonism that upsets me as much as apathy. I'd almost prefer it if someone would come out and throw rocks at me.'"

Holiday schedule . . .

The next issue of Plane News will be distributed on Monday, December 11, and the following one on Thursday, December 21.

Kroupa: Grumman team not only lived history, made it, too

(Continued from page 3)

be conducted by Cernan and Schmitt one is dubbed a "tidal gravimeter" and is to measure the effect on the moon of tidal pull of the earth. Another experiment is designed to find out how often meteorites and fragments from space hit the moon. Still another, a mass spectrometer, will be used to determine the nature of the thin lunar atmosphere.

There's also a sort of joint project between the duo on the moon and Evans in the lunar orbiter—an attempt to find out whether water is present in the subsurface of the moon. The moonwalkers are to measure electrical and mechanical properties in the subsurface and determine the extent to which the moon is "layered." Evans, with a device called a lunar sounder, will be doing the same sort of thing from his position in the Command Service Module above the moon's surface.

Evans, like Cernan and Schmitt, will not be idly passing the time of day. He'll be photographing the moon, the earth, and the heavens with extremely sophisticated cameras. He'll be making a thermal map of parts of the moon using an infrared scanning radiometer . . . and, employing a far-ultraviolet spectrometer, measure the character of the lunar atmosphere . . . and carrying out a multitude of photographic assignments.

Last in a series

And, inevitably, they will try to squeeze out every bit of information possible . . . for this odyssey will be the last for some time to come. Like us, they may reflect on how much the world (and Man's view of it) has changed since Apollo 11, the first manned lunar landing in July of 1969—just 3½ years ago. There are some easily measurable differences between Apollo 11 and Apollo 17. In the lunar door-opener the payload was 230 pounds, the lunar stay time was 22 hours, there was one EVA lasting 2½ hours, Neil Armstrong and Buzz Aldrin strolled three-tenths of a nautical mile, and harvested 47 pounds of lunar samples; for the up-coming mission, what's expected is a payload of 1,220 pounds, a stay time of 75 hours, three EVAs for a total of 21 hours, a travel range (aided by the LRV) of more than 20 nautical miles, and a soil-rock sampling weighing about 200 pounds. But in a sense, the comparisons are hollow, mere shadows of a deeper substance that escapes precise evaluation.

Besides, it is not yet time to assess Apollos 11 through 17, LMs 5 through 12. There is still work to do before the launch of Apollo 17. But on the basis of the past record, Grumman's top man at the Cape, Chuck Kroupa, believes that what's left to be done will be accomplished in the best possible way—because "our team is truly professional. It's the best in the business, bar none."

Historical achievement

And Kroupa adds that "We have a good spacecraft in LM-12 and every one of us on the Grumman-KSC team is highly confident and looks forward to a successful mission." Then, in a more philosophic vein (thinking, perhaps, of the thousands and thousands of people who worked on Apollo—and especially those on LM), he remarked:

"All of us should be proud that we have not only lived history . . . but that **we have made history.**"

Slips can be painful and costly, but insurance eases dollar pinch

The skiing (and skidding) season approaches, and the Grumman Group Insurance Department wants you to know that you have coverage for accidents and for time lost because of them.

Suppose you slip on the ice and twist your ankle. Your wife takes you to the hospital, where you are examined and X-rayed and given emergency treatment. "You'll be all right, but stay home from work for the next three days," says the doctor. Being stalwart, you figure you'll be able to hobble in to work after that length of time. How do Grumman's insurance plans take care of you in this instance?

First, you're covered for the hospital's emergency treatment if you have sought aid within a 72-hour period. This will pay up to $100 for the initial emergency treatment and any follow-up care received within six weeks of the emergency treatment.

You are also covered for loss of income under Grumman's Short Term Disability coverage, and you can claim such benefits in addition to any sick days you may use. You can claim Short Term Disability benefits from the first day you lose time from work because of an accident. When your disability lasts less than five days, you will not receive a claim form from the Insurance Office in Plant 28. Pick one up at their office or from an Employee Services Office.

Sick benefits

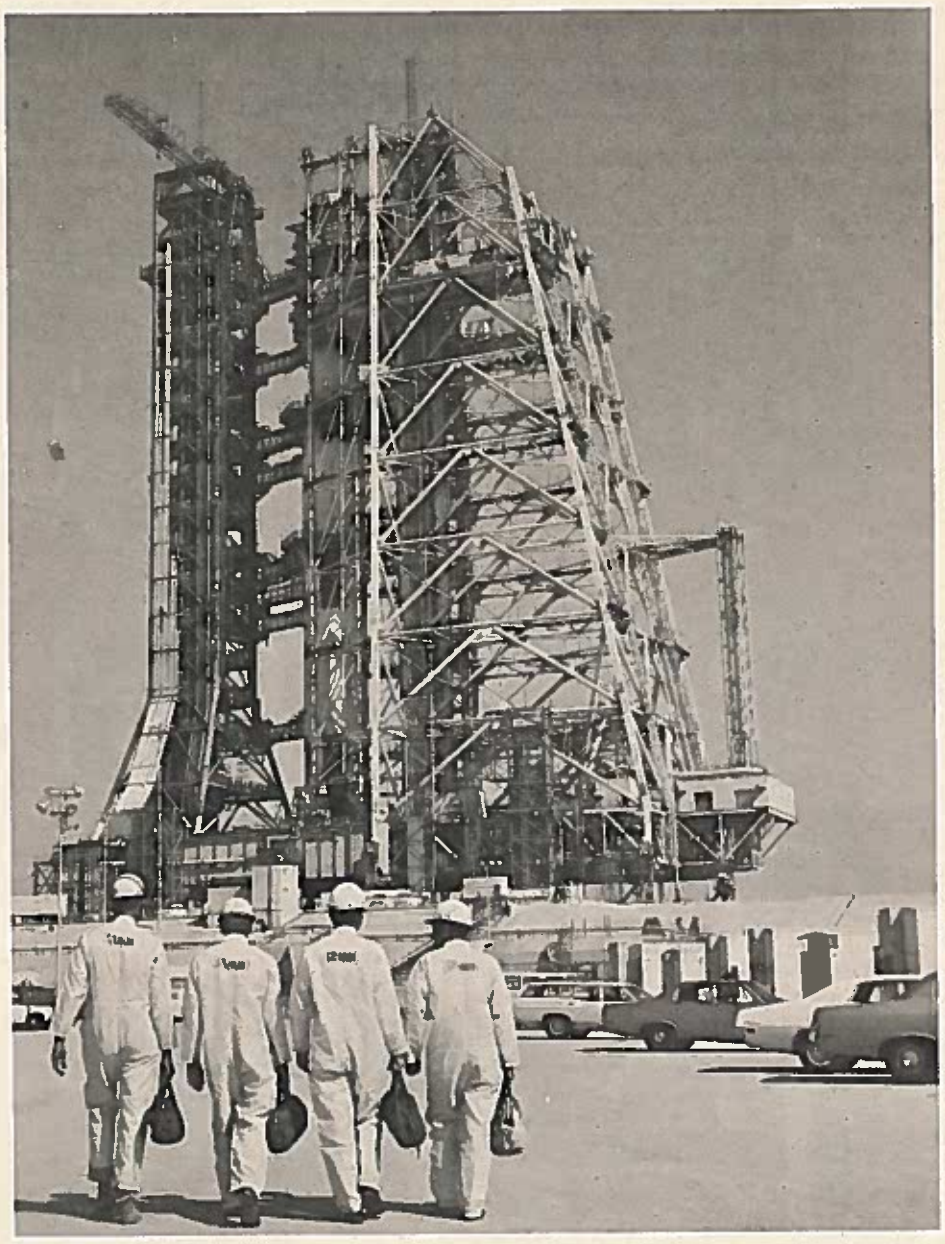
If it turned out you were unable to return to work by the fifth day, you would automatically go on Leave of Absence, receive a claim form in the mail, and continue to be covered by Short Term Disability, which will pay 60 percent of your base pay to a maximum of $100 a week for up to 26 weeks. (Benefits for disability caused by pregnancy are payable for six weeks.)

If, instead of an accident, you had been sick, benefits under Short Term Disability would have begun on the eighth consecutive day of disability.

On-the-job accidents and illness are covered by Workmen's Compensation. But if those did not amount to 60 percent of base pay, the Weekly Disability Income would make up the difference.

What about "sick days"? You're entitled to five paid absence days during a year. They must be used if you have a sickness or accident during the year, but if you stay healthy all year—and use none for personal business — the Company will reimburse you for any not used.

So Emergency Medical and Short Term Disability weekly payments help —financially, at least—to take the pain out of accident or illness for Grumman personnel. For additional information on Grumman group insurance, call Ext. 1506 or 3146.



On the way. **Four members of the Grumman team at the Kennedy Space Center in Florida make one of their last trips to the pad before Apollo 17 goes 'up, up and away.' (Photo by Charles Thompson)**

Standby duty for space crew

Throughout the Apollo 17 LM-12 mission that starts December 6, some 60 people — about 20 on each of three shifts — will be in Plant 25's Mission Support Room to monitor mission progress and be ready to help solve LM problems, should any occur.

In the room will be specialists, people thoroughly familiar with each of the technical disciplines involved, such as propulsion, environmental control, electronics, avionics, thermodynamics, mission analysis, and so on. The reason for their presence is clear: They're the people who know the book, backwards and forwards. They have the deepest data file on every part of the LM.

"If a problem occurs," says Joe Pruden, who'll be the Mission Support Room director on the second shift, "we can give Houston data on LM design, on what sorts of problems have popped up on earlier flights and how the problems were resolved; and we can attempt to simulate the problem right here."

Around-the-clock crew

In addition to Pruden, the MSR directors will be Ray Pratt on the 8-to-4 shift and Bill Parker on the "graveyard" shift. The Project managers for each shift will be Harry Hansen, Ben Gaylo, and Charles Schulein. And of course, 30 Grummanites will be doing a comparable job in the Mission Evaluation Room at Houston, except they will be on 12-hour shifts.

"We'll be tied in directly with Houston and the astronauts on an as-required basis," says Pruden. "The Grumman people at Houston will be on the line for the entire LM mission."

W. H. Drinkwater | A. L. Smith | C. C. Braun Jr. | J. Scandale | W. G. Lindahl | P. P. Peyrat | F. G. Kenneth | J. Mysliwiec | W. J. Kerr

service milestones

30

Thomas J. Solan Jr., Sub-Assem. Maj. (1)
Edward Hawrey, Alodine (2)
Robert E. Frazier, Proto. (2)
Vincent C. Saputo, GSE Mech. (2)
Michael J. Nigro, Templates (2)
Frank L. Yerk, Present. Serv. (2)
Earl J. Moores, Wing Fin. Assem. (3)
Robert Robb, Fin. Assem. Struct. (4)
Corwin Meyer, Sr. V.P. - Prod. Ops. (5)
Albert Van Essendelft, Environ. Cont. & Test (5)
Marie B. Trimborn, Present. Serv. (5)
Robert Tarr, Mech. Insp. (6)
Carl E. Alber, Airport mgr. (7)
Carmine C. Vizzi, Struct. Design (12)
Wallace G. Bischoff, Recvg. Insp. (17)
Edward H. Sauer, Trans. Oper. (20)
Chester J. Slaska, Prop. Account. (30)
Elizabeth E. Steinbach, Info. Recvg. & Serv. (35)
James Maxwell, V.P., Grumman Allied
Kenneth M. Cooke, PPO - F-14 (80)
Lawrence I. Lavelle, QC Supplier (87)

25

William H. Drinkwater, Sub-Assem. Maj. (1)
Allen L. Smith, Fuse. Fwd. Sub. & Maj. (1)
Arnold H. Nylund, Maint. (1)
Christian C. Braun Jr., Sma. Parts Fab (2)
John Scandale, Sma. Parts Fab. (2)
William G. Lindahl, Alodine (2)
Peter P. Peyrat, E.B. Weld. (2)
Fred G. Kenneth, Prod. Mfg. (2)
John Mysliwiec, Plt. Stores (2)
William J. Kerr, Insp-Tool (2)
Albert C. Smulczewski, Router & Shear (3)
James Kydd, Parts Paint (3)
David Powell, Wing Final Assem. (3)
Vincent J. Alese, Ctr. Sect. - Fin. (3)
Leonard Petruk, Prod. Mfg. Admin. (3)
Louis Calsetta, Fin. Assem. Struct. (4)
Charles A. Rogers, Conven. Mach. (5)
James E. Joy, Static Test (5)
Warren R. Bolle, Static & Fatigue (5)
William Penza, Instr. Sys. Des. (5)
Robert E. Bishop, Hyd. (6)
Herbert V. Quarry, Ordnance (6)
Eugene Okessen, Supp. Equip. Prod. (6)
Herman E. Schlock, Crit. Mat'l. Ctl. (6)
Henry C. Miller, Jig Details & Sub-Assem. (6)
Edward J. Curtis, Performance (7)
Paul F. Butler, Calverton Mgr. (7)
Walter D. Martila, Planning (15)
Pasquale R. Gatta, Engg. Admin. (15)
Alfred G. Barry Jr., Templates (16)
Peter R. Wallmuller, Recvg. Insp. (17)
John Marshall, Field Base Admin. (28)
Godfrey J. De Coster, Elect. Fab. (33)
Edward J. Pullen, Avionics Prod. Mgmt. (33)
Alexander Gomza, Static Struct. Meth. (35)
Walter A. Duester, QC Prog. Mgmt. (36)

J. Kydd | D. Powell | V. J. Alese | L. Petruk

L. Calsetta | C. A. Rogers | W. D. Martila | P. R. Gatta

Frederick J. Dresch, P/S Visual Aids (39)
Nicholas C. Karmeris, Tech. Ops. (77)
Francis J. Riley, P/S A/C Site Mgmt. (80)

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Nicholas De Maio, Prototype (1)
Robert W. Salvesen, Sub-Assem. Maj. (1)
Frank J. Brown, Sub-Assem. Maj. (1)
Daniel F. Timoney, Sub-Assem. (1)
Edward F. Moran, Sub-Assem. (1)
Edward F. Moran, Sub-Assem. (1)
William C. Heu, Join & Mid Mod Install. (1)
James V. Rose, Elect. Fab. (1)
William G. Swinson, Meth. Engg. (1)
Emanuel V. Salerno, Maint. (1)
Charles E. Hess, Safety (1)
James A. Carroll, Repro (1)
Kenneth C. Bolt, Press (2)
Alphonsa L. Lewis, Alodine (2)
Joseph M. Pagano, Alodine (2)
Kenneth C. Carlson, Heat Treat (2)
Arthur S. Lauf, Spotweld (2)
William L. Pascucci, GSE Mech. (2)
Andrew Gargiulo, GSE Mech. (2)
Frank A. Baldi, Steel Parts Assem. (2)
Carmelo Zambuto, Ctr. Sect. - Fin. (2)
Joseph B. Borak, Ordnance (2)
Rudolph P. Razzini, Prod. Ctl. (2)
Albert Hintz, Prod. Ctl. (2)
Robert A. Corrigan, Prod. Release & Ana. (2)
Rocco Amone, Proj. Prop. (2)
Charles G. Kamp Jr., Prod. Mfg. (2)
Caroline B. Williams, Maint. (2)
Alfred H. Siebel, Insp. - Mech. (2)
Carl Heim, Press (3)
Vito Posa, Fuse. Assem. (3)
Ronald G. Thomson, N/C Mach. (3)
Vincent M. Cavolo, Honeycomb Fin. (3)
Robert F. Phelan, Mfg. Test Plts. Mgmt. (3)
Peter Yampieri, Mach. Oper. (3)

(Continued on page 7)

W. R. Bolle | W. Penza | H. V. Quarry | R. E. Bishop | E. Okessen | H. E. Schlock | H. C. Miller | E. J. Pullen

Lynn Law—she seeks wider role for women

A Pricing Administrator is not an unusual position to hold at Grumman—unless you're young, attractive . . . and female.

Lynn Law became the second female Pricing Administrator in the Company 4½ years ago. A gregarious girl who enjoys people, she feels that persistency and determination, plus encouragement from her manager, contributed to landing the position. But, she says, "women have to do a better job of selling themselves. They have to convince men that they are capable of doing the job."

An advocate of the women's lib movement, "but, not an extremist," she says, "I believe in equal employment opportunities for women and equal pay for equal work. I like being treated as an individual and I'm certainly not inferior to any man simply because I'm a woman."

When Lynn came into the Company she says she was discriminated against: she was hired as an estimator but was given clerical duties.

Proved a good 'swimmer'

After two weeks she sounded off to her manager, determined to do the job she was hired to do; and she accomplished that. She started out estimating on the F-111. "There was no formal training," she said. "I was thrown into the water and told to swim." Her coworkers were extremely helpful during that period. "It's so important that you like the people you work with and mine have been great."

Her job includes preparing material cost estimates for the A-6A/A-6E program and making vehicle estimates on purchased equipment for the A-6E aircraft. Last year's estimates amounted to approxmately $75 million.

Lynn feels she has done a satisfactory job in Pricing and hopes she has helped pave the way for other females to become Pricing Administrators at Grumman.

Now she believes she is treated as fairly as any man in the group and has equal responsibility . . . yet, she wonders if other avenues would have opened for her had she been a man.

Lynn doesn't plan to make Pricing her career though, and if she should stay with Grumman she says she would eventually like to change jobs: She enjoys her work but feels everyone needs a change to broaden one's self. "No matter how interesting a job can be, after a while it can become routine." She thinks she would like Contracts because she's familiar with some of the work and thinks it would be a natural move.

Lynn not only sounds off when she feels she is getting a raw deal . . . she also sounds off when Grumman gets the same treatment. When Time magazine failed to mention Grumman in its article concerning the Space Shuttle contract, she wrote a letter to the editor voicing her disapproval. A paragraph of the letter was printed in the magazine's International edition.

Lynn graduated from Fordham University in June '68 with a Bachelor's degree in Economics with no definite plans for the future, except that she wanted to enter the business field. "At that time," she said, "I didn't realize how great a field the business world encompassed."

Someday she plans to get her Master's in Business Administration or Education. She has taken education courses as a hobby and thinks she may like to teach elementary school. She admires women who go to school, maintain a home, and work. "Someday I'm definitely going to get my Master's," she said. "That's something I want."

Plant coordinator

Eventually, Lynn would also like to have a family. She is 25 and her husband, Richard, is a Grumman engineer who works on the EA-6B Program. They live in Nesconset where they recently bought a house.

She was flattered when she was named as a Plant Coordinator. This extra-curricular activity is managed by the Opportunity Development Department and is a function of Grumman's Affirmative Action Program. "I was always active in school and I was excited about the appointment. I will be willing to take any responsibility it required to be a coordinator." Her duties are to answer questions of policy to employees, providing they are clearly defined in the manual. She sets up interviews for people with personal problems with the personnel representative in Plant 28 whose job is to aid in solving problems. "It's like a referral service for people with personal and Company-associated problems," she said.

Again, Lynn expresses concern for other women in the Company, remarking that there are a few female Buyers and Contract Administrators, but, she says, "women have very little representation in more responsible and challenging positions." She's optimistic about the future, though, and says things have changed for the better in her years here and she hopes they will continue to do so.

"With determination and change of philosophy there can be continued improvement within the Company," she said.

(This article was written by Linda Logan, who is attached to the Plane News staff and is participating in the Grumman co-operative education program with colleges. Linda will be going into her senior year when she returns to Bennett College in North Carolina next January.)

Lynn Law

service milestones

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(Continued from page 6)

Vincent G. Perniciaro, Dispatch. WIP (3)
Charlotte M. Biggio, Food Serv. (3)
Edward T. Swanteson, Elect. Test (4)
George W. Hemme, Fin. Assem. Struct. (4)
Joseph G. Diaz, Prod. Ctl. (4)
Carmine V. Romuno, Assem. Meth. & Plng. (4)
John Lerstang, Radar (4)
John J. Lowe, Flt. Transp. (4)
James Wells, Ecosystems (4)
George H. Angelbeck, Static Test (5)
Ralph O. Scordino, Avionics Inst. (5)
Thomas J. McCaffrey, Supp. Equip. Prod. (5)
Karl H. Jurgensen, Aero Test (5)
Frederick T. Carlucci, Aero Test (5)
Robert W. Harvey, Ops. Ana. & Plng. Rsch. (5)
Joseph E. Waesche III, Adv. Aircraft Sys. (5)
John J. Diffley Jr., F-14 (6)
George A. Gaschott, Maint. Admin. (6)
Romano Dudine, Maint. (6)
Stanley J. Richter, Adv. Mat'l. & Proc. Dev. (12)

A. G. Barry Jr.

P. R. Wallmuller

J. Marshall

G. J. De Coster

A. Gomza

W. A. Duester

N. C. Karmeris

F. J. Riley

John H. Engelmann, Plt. Protect. (18)
Nicholas Grskovic, B/P Whses. (21)
David Mac Intosh, Maint. (25)
John V. Biggers, Guid. & Cont. Sys. Int. (25)
George Maxwell, Maj. Assem. (27)
Harold E. Corley, Sub. Assem. (27)
George F. Williams, Prod. Rel. & Ana. (27)
Frederick G. Appleyard, Maint. (27)
Thomas E. Egan, Inven. Ctl. (30)
Frank Wassung Jr., Mach. Parts (30)
Catherline M. Knoll, Food Serv. (30)
Walter E. Becker, Elect. Fab. (33)
Walter M. Miller, Elect. Fab. (33)
Roy W. Rogers Jr., Conf. Data Mgmt. (34)
Harold J. Harrington, QC Supplier (35)
Martin Storch, Uphol. (36)
Victor Baldasar, Avionics Inst. (36)
Gordon Holcomb, Assem. Meth. & Plng. (36)
Clarence J. Massalone, Sub-Assem. (77)
Joseph J. Zinzi, KSC Mfg. Shops (83)
Leonard J. Herte, QC Supplier (87)
David L. Holtje, Director of Operations, GDS

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Arthur Haas, Instr. A/C Test (1)
George Manganis, Maint. (2)
Thomas Kubik, Fuse. Assem. (3)
Joseph M. Ryan Jr., Contracts A/C (5)
Anthony J. Scura, QC Lab (10)
Richard O. Ohlsen, P/S RF & Video Engg. (34)
William R. Jensen, Redundant Struct. (35)
Edward E. Miller, Pwr. Gen. & Conv. (35)
John E. Villane, KSC Mfg. Shops (83)

Navy pilots to get feel of F-14 in Operational Flight Trainer

It was about two years ago that Grumman won a Navy contract to design and build an Operational Flight Trainer (OFT), and soon the first of four trainers will be delivered to the Naval Air Station at Miramar, Calif.

Miramar will get two more OFTs, one this March and another in February of '74. The other OFT is scheduled to arrive at NAS Oceana, Va., in October 1973.

According to OFT Project Engineer Harry Ramberg, Plant 4, "The OFT is a ground-based motion simulator designed to familiarize pilots with the F-14 weapons system. The cockpit is realistically simulated; it looks just like a real Tomcat cockpit with all the controls, indicators, displays, and so on."

As Joe Ricciardi, simulation engineer, puts it, "OFT can do anything a real Tomcat can do — except fly. When a pilot is in it he sees and feels what the Tomcat can do, including pitch, roll, yaw (lateral) and heave (vertical) motions."

The OFT, when linked up with the Missile Control Officer Trainer (MCOT) being built by Hughes Aircraft, provides team training; that is, the pilot and missile control officer can "fly" a mission in real-time, and do it as though it were for real.

A lot of people from Product Support and Grumman Data Systems were deeply involved in building the OFT—such as Product Support engineers Don Nelson and Jerry Cronin, Work Package supervisors Jeno Kormendi and Terry Snyder, and, in GDS, Project manager Bruce Jack and Dick Grimaldi, Fred Ehmer, and John Howe, all of Technical Systems. "And many more," indicates Ramberg, "because the job of developing both the hardware and the software and then integrating the OFT isn't simple. It's complex."

Pilot training

For example, the OFT provides pilot training in such areas as cockpit familiarization, pre-flight checks, starting procedures, aircraft flight control, navigational and instrument flight procedures, communications management, ejection procedures, emergency aircraft systems management, limited taxi procedures, etc.

"From the outside, for people unacquainted with what can be done with simulators, the OFT may not seem impressive," says Ramberg. "A computer isn't the sexiest thing around, either, but that's not the point. What has to be thought of is function. Looked at that way, the OFT is great: it gives a pilot a real feel for how the Tomcat performs. And it provides that feel on the ground, in a safe environment, not up in the air in the midst of a dogfight. It's a faster and safer way for the pilot to learn about the capabilities of the world's finest air-superiority fighter."

Canopy check. Joe Ricciardi, Jeno Kormendi, Terry Snyder, and Project Engineer Harry Ramberg determine canopy-fit of the first of four Operational Flight Trainers (OFTs) to be delivered to Navy.

Making sure. To see that design specifications are adhered to, Charles Lee, Francis Schleider, and Joe Baumann discuss make-up of Operational Flight Trainer. (Photos by Fred Annette)

Rain fell on Moodandas parade

Things had been going along just about perfect for the Moodandas in the Plant 1 bocce league: they had finished the regular season with only a loss and a tie marring their 22-game schedule, they had routed the Pods in four straight games in the semi-final playoff series, and they appeared well on their way to their fourth straight bocce title.

But rain started to fall on their parade. That deluge took the form of the 601s, third-place finishers in the league, and the remaining team in the playoff. It was close but the 601s upended the Moodandas four games to three, and now the Moodandas must look to next year to start another streak. The winners: Len Deibler, Herman Boyle, Mel Johansen, Pete Carr, Bill Sheridan. The ex-champs: Nick Bazzicalupo, Ralph Lehr, Joe Wolf, Ken Wendell, Bob Spinella.

Safety tip for Christmas trees

Christmas trees can be a joy, but they can be a hazard, too. Homeowners are urged to check all electrical equipment and wiring and to replace faulty materials, to use only flame-proof decorations, and to keep their trees as fresh as possible.

Here's a formula said to help slow down the drying process of live cut trees: Place four tablespoons of Green Garde Micronized Iron (1 oz.) in gallon container. Add two cups light corn syrup such as Karo. Add four teaspoons liquid chlorinated bleach such as Clorox. Then add a gallon of HOT water. Mix well and add to the tree stand bowl.

The tree stand bowl should be checked daily to insure that at least one inch of preservative covers the bottom of the tree trunk. If it does not, add more of the formula. Stir well. It can be stored for eight to 10 weeks, **but keep it away from children.** The preservative needs to be hot only the first time used. It is suggested that the live tree when brought home should have one to two inches cut from the base of the trunk to eliminate clotted resins.

Firth, Czarniecki horseshoe champs

There wasn't the excitement of the long bomb, or the tape-measure homer, but the blood must have been perkin' a little for Rick Firth and John Czarniecki as they opposed Jeff Quarles and Casey Stengel in the finals of the Plant 24 horseshoe tourney.

Quarles and Stengel had won the regular season play, then had knocked off Sal Brucato and Werner Dauber in the semi-finals. Czarniecki and Firth whacked Charlie Selock and Leon Belcher in the semis, too.

The finals were a little tougher, and after six games it was all tied. With the title on the line, Firth threw two ringers late in the game to earn his team the 'shoe championship with a 21-18 final victory.

CALENDAR of events

Notice of events for period Dec. 11 - Dec. 21 should reach Plane News by Nov. 28.

Coin Club: Every Wed., 12:05 p.m., Vendor rms., Plt. 25, informal lunch time meeting. Ken Hale, Ext. 1936.

Dance Club: Beginners, Tues. evgs., 8:30-10 p.m., St. Francis of Assisi, Northgate & Clay Pitt, Greenlawn; intermed., Thurs. evgs., 8:30-10:30 p.m., Portuguese Amer. Hall, 306 Jericho Tpke., Mineola, $2/session. Len Luke, Ext. 1438.

Duplicate Bridge Club: Every Thurs., 5:45 p.m., Plt. 18, ACBL sanction, partner guar. Dan Panshoukian, Ext. 2798.

Fencing Club: Mon. & Thurs., 5 p.m., Plt. 30 cafe, instruc. & competition. George Kegney, Ext. 7541.

Ex-Servicemen's Club: Wed., Dec. 6, 7:30 p.m., Plt. 28 auditorium, reg. mo. meet., vet employees; vets' counselor avail. after. Thurs., Plt. 2, Ext. 2814. Al Kordula, Ext. 87259.

Old Friends Club: Tues., Nov. 28, 7 p.m., Plt. 28, rm. 1, mo. meet.; menu: hero sandwiches. Frank Mistretta, Ext. 2683 or 01049.

Soc. of Mfg. Engineers: Mon., Dec. 11, 6:30 p.m., Pan Am Jet Center, JFK Airport, Tour of facility, spkr., B. Aiken. Dick Knoll, Ext. 84040.

Soccer Club: Practice every Wed., Plt. 2 field, lighted; games, Sun., Nov. 26, 2:30 p.m., Grumman vs Elmont at Elmont, Ext. 2400.

Stamp Club: First 3 Wed. of mo., 5 p.m., Plt. 30 cafe, circuit book sales, swap, auction, discussion, beginners & advanced, new members or guets. E. Manaker, Ext. 3513.

Dunkley, Gentzlinger top play with pin marks of 268, 244

It's not very likely that Rudy Dunkley has ever had a better year than the one he's putting together this season in the Bethpage Nite Owl loop. Look at the record: he holds every individual mark in the league, and just two weeks ago he upped his own game high to 268, thereby erasing his former record by a single stick. Rudy also owns high series, 661, and high average, 192, and this could be the year he leads the Grumman varsity to a long-needed comeback in the L.I. Industrial Bowling Tournament.

But the rest of the Owl loop didn't fare as well; Marty Susa clicked for 200 and June Pine reached 458 on a 190 high. . . . Although Nancy Gentzlinger didn't reach quite as high as Dunkley while setting a new game mark in the Century Mixed circuit, she did hit 244, eclipsing her own record by 21 sticks and also surpassing the men's record by eight sticks, too. Nancy also collected season series honors with her 595, while Phil Musa had 224 and Will Bruckert 608 for the men.

Closer and closer

Charlie Gosline keeps chipping away at the individual scoring marks in the Trader loop. Gosline, who already rests in the runner-up spot with a 255 game, fired a 624 recently to take over second place in the series totals. He used games of 206 and 230 to achieve that distinction. Other Trader highlights included Hal Ebert's 202-206-612; Al Marhold's 201-579; Sal Sclafani's 213-236-600; and Steve Kish's 211-573. . . . Larry Schneider took claim to the high game in the Rocket loop with a 243 and finished with 552, while Dick Bereis hit for 563 and George Katz had 203-543.

In the Syosset Mixed circuit, Rob Ogilvie hit the wood for 225-213-629, far outdistancing the rest of the field that included John Betterino, 204-201-564, and George Bunzel, 222-542, Monica Wojtyniak's 211-532, Bernadett Gately's 213-473, and Rita Mathia's 531 were outstanding women's scores. . . . John Mayer's 216-584 and Carol Mayer's 190-468 helped push the Rebels into a first-place tie with the Woodpeckers in Woodbury Mixed action. Earlier, Bill Lawson shot 211-573; Don Eivers, 220-557; Martha Juppe, 186-483; and Shirley Schiavetta, 483.

Richroath hits 254

Don Richroath pushed into the spotlight in the E-2 Hawkeye Mixed (not to be confused with the plain old Hawkeye Mixed) as he fired 254—a record—in reaching 591—another one. And the Ink Spots—are they dating themselves?—hold the team series mark of 1,922, while the Winners are game record holders with 717. . . . Joe Gallo couldn't have bested a nicer guy when he shot his 244 for a new high in the Aerospace loop. The former record holder? Why, Joe Gallo, of course. Joe finished with 599, with other high spots turned in by Ted Dija, 215-554; Randy Dorn, 218-589; Phil Fey, 233-569; and Harry Trueman, 215-557.

If the Lollipops are sticking close to the Rollers for the lead in the Black league, they can thank Bob Specht for his 234-621 which led the scoring recently. Walt Becher hit 214-201-598 to go with an earlier 217-599, while Joe Glasser fired 226-596; Joe Russo, 218-589; Sid Weihs, 233-605; Vin McAvoy, 221-591; and John O'Hanley, 212-580. . . . Vince Crevoiserat holds both individual marks in the Hawkeye Mixed loop and, judging by recent results, he's not likely to let anyone near them for a while. In past weeks Vince shot 204-216-583, 234-601, and 200-560 to lead the scoring, while Ellen Aloise fired 510, Ann Wuestmann, 497, and Arlene Schwemmer, 484.

Herz, Spalding star

Bob Herz and Dick Spalding, with 246 and 828 (that's for a four-game set) respectively, led the pinspilling in the Masters league, with Bob's 800 total little consolation as the Three Cheerz dropped out of first spot in the standings. Other headliners included Jack Nielson, 801; and Paul Waisanan, 234-763. Spalding, who had 241 and 232 for 828, combined with Marty Fried, 778, and Phil Piacentini, 222-769, to set a 2,375 series record. . . . In Classified play, Bob Dudonis scored 212-600 and 222-581; Bob Ingram, 207-219-586; Norm McDowell, 213-583; and Ken Warta, 233-580.

Rounding out the highlights: **Red**—Wes Johnson, 209-587; Al Weisskopf, 211-206-575; Ben Monte, 204-204-587; Herman Miller, 203-585; Ted Martines, 211-563. **Blue**—Steve Mancini, 251-573; Joe Morrison, 226-595; Rich O'Neill, 203-576; Pat Fischetti, 208-559; Al Giacoia, 234-575; Don Lundgren, 231-566; Walt Reis, 242-565. **Patchogue Mixed**—John Erickson, 232-548; Ed Campbell, 216-548; Lois Haas, 495; Virginia Geer, 503; Ken Becker, 215-576; Bob Geer, 204-560; Dick Lindstrom, 215-596; Joan Burgess, 478.

Chau's 268 paces Gold pistol win

Three of the Grumman pistol squads competing in the L.I. Industrial circuit are sporting unbeaten records. In the expert division, the Gold team outfired Kollsman, 1,053-1,031. Hank Chau's 268 was high for the squad, with Phil Boehm's 266, Nick Evangelides' 262, and Ron Trenkner's 257 contributing to the victory.

The two remaining unbeaten contingents, the C and B teams, participate in the sharpshooter division of the league. Bill Boyce's 249 and Mort Weinberg's 248 highlighted the Bs' win over Grumman E, 968-919, while Sy Cohen's 256 paced the Cs to their 988-979 triumph over Republic.

Earlier, the Es topped Pan Am, 978-972, as Tom Cassino shot 249, and Dave Rice's 269 wasn't enough to offset the Grumman Ds 1,026-1,038 loss to Kollsman in the expert section.

In the South Shore league, Rice fired 272 and Art McKee shot 263 but the Grumman centerfire team lost to Great Cove, 1,048-1,053.

What a ringer!

There was a time when "pitching" meant only one thing to Don Seagraves: somehow, there had to be a field, with four bases scattered around, and a lot of guys running after a round ball. That shows how times have changed. Now, the only pitching Don does is on a horseshoe court, and if you miss a throw, you get another chance to make up for it pretty quick.

And "pretty quick" is how Seagraves disposed of his competition in the Plant 27 singles horseshoes competition. Don whacked Frankie Carter—another diamond deserter—to take the Wyandanch title a couple of weeks ago, missing a clean sweep by dropping the third game, 20-21, in a 21-6, 21-6, 21-12 match victory.

In doubles play, Tom Kondos and Caesar Roscigno tripped Al Nickle and Al Gilbert, 23-6, 21-16, 6-21, 22-3 for the tandem crown.

GAA schedules pin dates for men's, women's trials

"Those were the days, my friend . . . " Remember when the Green Bay Packers dominated the National Football League . . . and the N.Y. Yankees were perennial champions in the American Baseball League . . . and the Grumman varsity men's bowling team generally finished on top of the L.I. Industrial pin classic?

Things haven't been going too well for the Packers or the Bronx Bombers in recent years, and the Grumman men have had their own trouble finding a winning formula, too. If you think that's an exaggeration, look at the record: from 1960-66, Grumman won the team championship in the L.I. tourney. Since then, the men's squad won only one more title, in 1968.

How come? That's a pretty difficult question to answer. Maybe it's that the competition is better. But more important, what is 1973 likely to hold for the men? That's a question that won't be answered for some months yet, but coming up soon are the varsity men's bowling trials, which will determine who represents the Company in the pin classic in 1973.

Here's how the varsity trials shape up:

- To be eligible, a contestant must have compiled an average for at least 24 games in an ABC league.
- The minimum entering average for men is 175.
- If a bowler competes in more than one league, his combined average must be at least equal to 175.
- Entry averages must be computed as of the week of December 11-16.
- Application blanks should be filled out completely and mailed to GAA.
- Entry deadline: Friday, December 30.

Although the men's squad has had difficulty getting back on the winning track, the Grumman women keep on doing their thing: winning championships in the L.I. Industrial women's tourney. Their roll-offs are coming up early next year, too, and entry qualifications are the same as for the men, with one exception: the entering (or combined) average is 125.

The women's trials will also be conducted at Mid Isle.

The men kick off the roll-off action on Saturday, January 13, continuing each Saturday through February 10. They will roll a total of 27 games, with the field reduced to 32 after 12 games (January 20), then further reduced to 24 after 18 games (January 27), with the top 10 remaining after 24 games (February 3).

The 10 varsity members will roll three more games on February 10 to determine the starting five in the L.I. Industrial tournament.

Candidates for the women's varsity will bowl a total of eight games, starting Saturday, January 27, and finishing on February 3.

If you think you can help get the men's team turned around and headed for the L.I. crown, please, fill in the application contained on this page and send it off to the GAA, Plant 30.

Varsity Bowling Trials

Entry Blank

Name .....

Badge No. ..... Plant ..... Dept. ..... Ext. .....

Qualifying Averages

Men (175) Dec. 11-16, inclusive Average	League & Lanes	Women (125) Dec. 11-16, inclusive No. Games
.....	.....	.....
.....	.....	.....

Submit to GAA, Plant 30

For Rent

ROOM: Furn., 4 mi. to Pl. 5, wlk. to shops, services & library. linens & desk supplied, gentleman pref. MY 4-5814.

ROOM: Furn., 2 mi. to Grumman Bethpage. 798-1676.

APT.: Furn. for mature gentleman, priv. entr. & bedrm, full kitchen, bathrm, liv. rm., Baldwin. BA 3-3822, any time.

APT.: Deer Park, 4 large rooms, private house, avail. Dec., $195. 586-2671.

ROOM: Furn., Massapequa Pk., pvt. entr. 541-5602.

APT.: Wantagh, 4 rm., 2 bdrm., all rms. pnld. & carp., nr. Grumman, shop., transit, bus. cole. preferred, immed. occup., $225/mo. inc. util. 226-5256.

HOUSE: For winter mos., contemp. design, in Berkshires, over 5 acres, 3 bdrm., 2 bath, lrg. liv. rm., view, firepl., etc. 334-7081.

ROOMS: Furn., pvt. entr., gentleman only, opp. Grumman. 822-6729.

ROOM: Furn., pvt. bath, nr. Grumman. 796-8106, after 5 p.m.

APT. Furn., 2½ rm., pvt. entr., No. Merrick. 538-0001.

HOUSE: Plainview area, 3 bdrm., unfurn., 6 mo. lease, $325/mo. 433-3855.

Wanted

SHOP MANUAL: '66 Chevelle. 785-5331.

KITCHEN SET: Tbl., 4 chairs, Mediter. or dk. pine colonial, formica top. 581-6166.

COTTAGE: 2 bedrm. w/garage, pref. in Suffolk, middle-aged couple, no child. 698-1588.

STUDIO APT: Near Calverton, Jan. thru May '73, male Grummaanite transferee. leav. family in Fla. until compl. of school yr. O. S. Gonzales, 165 Treasure St. Apt. 104, Merritt Island, Fla. 32952. 305-632-9304.

DECORATIONS: Used & unwanted artif. trees, ornaments, to bring cheer to the needy, distr. by Sisters for the Sick & poor, will pick up. 728-2772, evgs.

PONY CART: for Welsh pony, pref. four wheels. Call Bruce, Ext. 9492.

TRAINS: Lionel & American Flyers, will buy. RO 6-0275.

CESSNA: '63-64, 182 Skylane, will consider 50% ptnrship. on East. L. I. on same or newer model Skylane. 298-4907.

CHINA CLOSET: Old glass type preferred. WE 1-1745.

MILITARY ITEMS: WW I & WW II, German, American, etc. FL 2-2728.

TRANSMISSION: 4-spd,. for 3 cyl. '67 SAAB. 751-0575.

Lost

TIE BAR: One gold-plated, crab shape, Plt. 15 vic. Nick Giovainos, Ext. 7775.

Car Pool

CENTEREACH: To Plt. 15 or 14. JU 5-8992.

For Sale

OLDS: '67 Cutlass, 4 dr., hdtp., pwr. steer. & bks., air cond., vinyl tp., posi. rear, instr. grp., 2 xtra rims, manual, 47,000 mi., orig. owner, $1,100. 757-2347.

VW: '69 Bus, 28,000 mi., full equip. grp., must sell. $1,500. 567-2313, evgs.

NOVA: '67, new 4 yr. batt., radiator & htr. hoses, starter, water pump, exhaust sys., 2 fr. shock absorb.; also 2 snows & 6 tires, 2 spkrs., gets 18-22 mpg, $975. WE 5-6378.

IMPALA: '67, blue/black vinyl tp., auto. trans., steer. & brks. air cond., new rubber, tape deck, $995. WE 1-4124.

VW: '70 Bug, tan, new tires & muffler, $1,290. 728-2772 evgs.

MUSTANG: '70 Mach II, 351 eng., air cond., pwr. steer. & bks., ask. $1,950. 883-2560.

RIVIERA: '67 hdtp., orig. owner, new tires. 212-CL 9-5468.

VW: '69 Bus, 9 pass., equip. for camp.; bed, table, rug, curtains, new rebuilt eng., clutch, shocks, FM/8 trk. stereo w/6 spkrs., $1,950. 581-5912.

PONTIAC: '63 Bonneville, rebuilt eng., new batt., bks., starter. 864-8195.

CHEVROLET: '64 Biscayne, 2 dr. auo. trans., $50. 781-1375, after 6:30 p.m.

CAMPER: '69 Cox camper, sleeps 4. MO 9-7633.

For Sale

GALAXIE: '65 Ford 500 XL conv., 352 V-8., p/s, new exhaust sys., 2 snow tires on wheels, manual, $400; also 25 in. lawn sweeper, Craftsman, $10. 586-8130.

FAIRLANE: '64 500, blue, 4 dr., auto., p/s, R&H, $225. ED 4-8547.

PONTIAC: '66 Grand Prix, air cond., pwr. steer., auto. trans., good tires, nds. eng. work, best offer, 543-0586, after 6 p.m.

PONTIAC: '64 conv., p/s, p/b, R&H, stud snows, ask. $325. FO 8-4119 after 4:30 p.m. or weekends.

MUSTANG: '67 conv., 4 spd trans., 289 cu. in. eng., 4 bbl., front disc bks., $350. 692-8638.

MUSTANG: '65 V-8, auto. trans., p/s, disc bks., h.d. suspension, lim. slip diff., new bks. & tires incl. snow on extra wheels, $650. 427-8449.

PONTIAC: '66 LeMans conv., V8, 4 bbl., p/s, p/b, $250. 482-1637, after 7 p.m.

FORD: '62 Falcon wagon, std. shift, 6 cyl., $50. 928-0183.

SAX: Tenor, Conn pro model, $225. AN 5-9508.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.
Type or print ad on form available at Employees Service and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.

VOLVO: '71 station wagon, model 145S, 4 spd., 22,000 mi., AM/FM stereo, ask. $2,800. 586-0757.

BUICK: '68 Wildcat, 2 dr. hdtp., p/s, R&H, rear defroster & rear spkrs., low mileage, must sell, $1,200. 924-3730.

OLDS: '65 Starfire, 2 dr. hdtp., air cond., pwr. steer. & bks. & wndws., new batt., water pump, & 2 tires, $595. 589-8171.

DUNE BUGGY: chassis, incl. mtd. 36 hp eng., extras, $250. 269-4004.

FORD: '63 Galaxie sedan, std. trans., 6 cyl., 78,000 mi., nds. muffler, best offer. MO 1-0282, after 6 p.m.

BUICK: '64 LeSabre, pwr. steer. & bks., $150. 669-8959, after 5 p.m.

MERCURY: '69 Marauder, orig. owner, $1,500. PY 6-9591.

VW: '65 dr. sedan, black, $495; drums, compl. set, 2 tom-toms, snare, etc., $145. 671-0517.

MISC.: Child's Blazon hobby horse, fire engine, met. colon. doll house w/xtra furn., wh. rocking chair, met. table & 2 chairs, infant's car bed never used. 724-0573.

MISC.: Boy's 3 spd. bike, Royce Union, $20; marble coffee table, eliptical shape, $45; end table, cont., fruit wood, $35; floor lamp, $20; table lamp, $15. AN 5-9508.

MISC.: Lawnmower, rotary, 22", Ambassador w/grass bag, $25; bikes, two boy's, $10 ea. 938-6140.

MISC.: 6 ft. brown 2 cush. sofa, $25.; lg. 72" pearl gray ktch. table, $10.; gray coach baby carriage, $15. MY 4-4019.

MISC.: Pair 15 in. rims; 16 lb. man's bowl. ball. 735-5261.

MISC.: White Boston rocker/cushion; maple end - 1 draw., $10; Lawsonn in-wall chr. med. cab., $8; Bissel carpet swpr., $4; ride-on lawn mower, $75; 7½ hp. otbd. motor, $20. LT 9-3762.

MISC.: tire 6.95 x 14 on rim, $13.; fireplace log set, $12; Jacobson reel mower, $20; 14" rim (2) Pontiac, Chevy. 543-1565.

MISC.: Games, batt. & mech. toys, dolls & cloth., bike, wagon, port. phono., movies, etc. for child thru 11 yrs. IV 9-1431, after 7 p.m.

PROJECTOR: Slide, 35 mm Headliner Bell & Howell, TDC, semi-matic, $25; Bavarian china Hutschenreuther, platin. banded serv. for 9, plus serv. pieces, $90. HA 3-1791.

FISH TANK: 10 gal. SS frame, Metraframe light reflect. Dynaflow motor filt. 10 lb. color. glass chips, & clean. & filt. material, $20. PY 8-2424.

WASHER: & dryer Kenmore, 3 wks. old, avoc. gr., on wheels, 2 yr. guar., hlds. 12 to 13 lbs., runs on 115 volts, $300. 334-3577, after 5 p.m.

For Sale

TIRES: Two Goodyear poly. belted 700x13 on rims, 2000 mi., both $25. 785-2143.

TIRES: Mounted for Datsun 510, set of four 5.60x 13 plus two 7.00x13 snows, all $60. 757-5580 evgs.

TIRE RIMS: Two 14 inn. rims for snows, will fit '57 to '67 Plymouth, $10. 724-2756.

TIRE RIMS: Two Pontiac, 14 in. brand new, both for $10. 731-6097, after 6 p.m.

TIRES: 8:85x14 studded snows on 14 in. safety rims for '65 to '70 Chevy Belair, Impala or wagon, 2 new Delco rear shocks, $30. WA 1-3465.

GAS TANKS: 2 "Cruise-a-day" 6 gal. boat tanks with hose, 2 for $25. 271-7909.

TIRES: Kelly-Springfield, wide grip belted, used one winter H70x15, $30. 888-7947.

PUPPIES: 2 blk male cockers, AKC, shots, champ sired. 928-0183.

SKIS: Spalding G.S. alum. (210 cm.) w/Shlomon 505 bind., $100 or best offer. 671-4083, after 6 p.m.

TIRES: VW bus, 700x14, reg. & snows. 724-7015

SKIS: Hart std., 6'5" with Cubco bind., $25; steel poles; Henke size 9 buckle boots, $15. 271-1680.

SKIS: Head Mercury metal, 6'0" with Cubco bind., poles and lace boots, size 8½ to 9 man's, ask. $90. 549-9697, after 5 p.m.

STEREO: Panasonic phonograph, Model SG-453, AM radio, 33 1/3 & 45 rpm, AC or 6 "D" batt., ask. $20. 586-0757.

ORGAN: Hammond console, model A143 cherry-wood, 2 manuals, 25 pedals, Leslie low-boy spkr., cabinet No. 351 attached. 751-1639.

OBOE: Ponte, Lorel model, platque key, LH & RH F res., 3 yrs. old, $250. 265-4677.

CLARINET: Wood B flat Rampone Milano, $68. HA 7-9683, after 6 p.m.

MISC.: Combination car bed/carriage, youth chair, snow suits, hand knit sweater sets, infants layette, clothing, toy, etc. Call 10-5, 864-2847.

MISC.: GE refrig., self-defrost, 17 cu. ft., 3 yrs., $150; hassock cot, $25; rotary lawnmower, $25; English racer bike, $15. 473-1888.

MISC.: 16" AMF Roadmaster Javelin Jr, conv. tank, train. wheels, $18; 16" Columbia tricycle, $12; boy's ice skates, size 3; child's 4 drawer desk & ad. chair, $15. FO 8-6752.

MISC: Deluxe table-top oven broiler Toastmaster, used once, $20. 589-7347.

MISC.: Aurora HO elec. car set, 66 trks., Russ kit speed contr., 3 cars, xtras, aak. $25. 589-7727.

MISC.: Heathkit twoer 2-meter transceiver, Cushcraft II beam antennae, CDE AR-22R ant. rotor, 70' RG 8/U coax cable, $25; accordion, Settimio soprani, 120 bass, 7 octave, $125. IV 6-8565.

MISC.: Girl's Reidell figure skates, size 13½, ask. $15. CH 9-4670.

MISC.: Sewing cabinet for new Singer, 31"Hx17"Lx 22"W, $25. 427-5339.

MISC.: 3 pr. maternity slacks, size 9/10, navy, tan, gray, $15. 265-3198.

BOAT: '60 Shoup otbd., 18 ft., 50 hp '66 elec. start Mercury, fully equip., 2 6-gal. tanks, new summer cover incl. side curtains, $900. PT 8-6283.

BOAT: '71 18 ft. Scotcraft, 60 hp Johnson, Cox tilt trailer, all extras. 732-1711.

BOAT: Ulrichsen 24 ft. Sport Fisherman, '63 head, galley, winter cover, $1,600. 724-1329.

BOAT: '66 Jersey skiff, 28 ft., flybridge, radio, Chrysler 318 motor, $4,100. SU 1-7697, after 5 p.m.

BOAT: Fiberglass 15 ft., 35 Johnson, tip trailer, $595. 588-8281.

TRAILER: '70 Apache camper, Mesa III stove, icebox, sleeps 6, solid state extras, $995. 722-3178.

For Sale

BOAT: 2 ft. motorboat, heavy displacement type hull, 1¼" planking, Lanthrop 4 cyl. 70 hp eng., hugh cabin w/2 bunks, in water, ask. $400, before winter stor. LT 9-6756.

BOAT: '70 17 ft. cust. built cabin boat, fbgl. over wood, '70 50 hp Mercury outbd., '70 Tee Nee #1400 trailer, extras. CH 9-6944.

BOAT: '69 Sportcraft fiberglass cabin cruiser, 27 ft., twin 160 hp Mercruiser inbd./outbd. eng., depth finder, AM radio, sniffer, synchr., deluxe int., dinette, recessed sink & stove, icebox, fresh water tank, marine head & hold. tank, sleep 4, many extras. $7,500. 421-5589.

TRAILER: '71 Lancer, 17 ft., leeps 6, fully self cont., w/Reese sway cont. hitch, brake cont., awning, spare tire, xtras, $2,400 firm. 888-4662 after 4:30 p.m.

TRAILER: Utility, 4 x 8 ft., steel body & sides, wood side extenders, canvas roof, new tires & snare, h.d. hitch. $350. GR 5-6969, or IV 9-9388.

TRAILER: '69 25 ft. Norris, sleeps 6, compl. bath, tub, shower, gas or elec. ref., 4 burner stove & oven, SS double sink, F.A. heat, $3,000 firm. JU 6-7356.

TIRES: Snow, two, 7.00x13, polyester, 4 ply, tubeless, hardly used, $30. 265-7852.

TIRES: Set, snow, 775x15 and wheels, $30. 643-9615.

TIRES: 6, four H:78x14 ww poly., two 8.25x14, all 6 for $100. 587-8158.

TIRES: Truck, two used Firestone 750x16, 6 ply, $25 both. 878-2803.

TIRES: Four, 6.00x15 ww, two pract. new, one half-used, one use as spare, $30 for all. 921-8265.

TIRES: Snow, 8.55x14, on Pontiac rims, two for $30. FL 4-1402.

TIRES: Snow, two E78x14, Sears Dynaglass belted, on Rambler rims, approx. 1,000 mi. $40 pr. 694-4062.

HOUSE: Babylon, old col., 60x160, corner, livrm., dinrm., eat-in-kit., 3 bd. rm., OHW, walk to everything. 669-7133, after 6 p.m.

HOUSE: N. Lindenhurst, custom ranch, 2 car gar., 100x100, fenc., 3 bd. rm., lrg. liv. rm., formal din. rm., OHW, w-w, s/s, xtras. TU 8-3117.

HOUSE: S. Huntington, 4 bd. rm. colonial, sch. dist. 13, eat-in-kit., formal din. rm., lrg. liv. rm., center hall, attach. gar. w/auto. door, 75x150, fin. den, wet bar, 3 zone heat., xtras, $42,000. HA 1-0903.

HOUSE: W. Farmingdale ranch, ¼ acre, 3 bd. rm., 2 math w/pwd. rm., 24 ft. liv. rm. w/5 ft. firepl., w-w, slate foyer, lndscpd., patio., fence. CH 9-2873.

CAPE COD: Custom, lrg., 4 bd. rm., fully lndscpd., nr. L.I.E., non develop. 981-1335.

HOUSE: Mother/daugh. leg., Brentwood Pines, bet. N. St. & Expwy., expanded ranch, 3 bd. rm., liv. rm., din. rm., eat-in-kit., Hollywood bath, fin. bsmt., air cond., dishwasher., sec. fl., din. & liv. rm., eat-in-kit., pvt. entr., porch, ask. $38,990. 273-6679

RANCH: 5 rm, 2½ car gar., full bsmt., $4,500 down, $225/mo.) immed. occup. 221-4984.

HOUSE: Lake Grove, 4 bd. rm. colonial, 24 ft. center hall, 2½ bath, laund., 2 car. gar., fenc., patio, wooded & lndscpd., applia., 1/3 acre, full bsmt., s/s, $47,500. 588-6366.

HOUSE: Port Jeff. Sta., 4 bd. rm., 1½ bath, den, 2 car gar:, 1/3 acre, eat-in-kit., dinrm., treed, w-w, drapes, xtras, $28,900. 928-1071.

HOUSE: Massapequa, split level, new carp., firepl., xtras, $48,000. 931-6863.

HOUSE: Bethpage, colonial, 8 rm., 2 car attach. gar., eat-in-kit., lrg. fam. rm. w/firepl., 2½ bath, s/s, walk to sch., stores, & RR. WE 5-1988

HOUSE: Waterfront, 5 bdrm., 2½ bath, 3½ car gar., OHW 3 zone, s/s, pvt. beach, firepl., S. Richter, Blue Point, N. Y., $55,000. EM 3-6079.

PROPERTY: Kresgeville, Pa., ½ acre, Indian Mt. Lake, Carbon Co. Township, $3,500. 293-1036.

HOUSE: Stonybrook, 4 bdrm., 2½ bath col., oversize plot, 2 car gar., cntrl. air, built in vac., all appli., above-ground pool, stor. shed, loaded w/ xtras, owner transf., $38,500. 751-9562.

MUSTANG: '72, A/T cons., bkt. seats, 8 cyl., R&H, yel. w/brown vinyl top, pwr. bks., bump/gds., w/w, 6,000 mi., sacri., best offer over $2,750. 822-0927.

PONTIAC: '63 Catalina, 4 new tires, R&H, full pwr., top works, 2 unmount. snows. 884-8626.

PORT-A-CRIB: Used twice. 226-5467.

TRIUMPH: '69 Spitfire, snows, 25,000 mi., ask. $1,150. 234-0328.

MINI BIKE: Rupp, less than 10 hrs. time; car carriers, nv. used; helmet, painted metal flake. 744-3435.

For Sale

SNOWS: One new, 1 used, 7.75x15, $25 & $10, both $30.; two 3-panel wooden fold. screens, unfin., 13x72x3, 17x72x3, $10 & $12.; ski boots, Kastinger, 8 med.; Molata 11 med., $10; Sears 3.5 hp self-prop. lawnmower, needs start., $45. 757-5755.

HOUSE: Islip, 3 bdrm. hi ranch, 2 car gar., fin. bsmt., s/s, OHW, 1½ bath, over ½ acre cleared lot, 22 ft. above-ground pool. 277-3508.

LOT: Residential, 50x125, all city util., Islip Manor, conven. to shop. & RR. Anthony Furguiele, Ext. 305-867-2823.

HOUSE: Centereach, 3 bdrm. ranch, 106x120, 2 full bath, full bsmt., 2 car gar., wooded fully lndscpd., $33,500. 286-0039.

HOUSE: Islip, S. of Montauk Hwy., 3 bdrm. cape, eat-in-kit., din. rm., firepl., 1½ bath, playrm., attach. gar., 100x100, low tax, w-w, OHW, avail. 3 mos., $27,500. 305-262-7278, after 5 p.m.

OLDS: '70 Cutlass Supreme, conv., fac. air, w/w, pwr. steer, disc bks, tinted glass, electronic ign., blue, $2,300. 623-0196.

PONTIAC: '68 Catalina conv., pwr. steer & bks., auto. trans, ask. $1,200. 273-6411, after 6 p.m.

RIMS: Plymouth-Dodge 14 in. wheels, size 14x5. Bob Heyman, Ext. 84636.

PLYMOUTH: '40 conv., new paint, good cond. HA 7-0151.

BIKE: '69 Yamaha, 2 yrs., 350 cc, street bike, lug. rack, sissy bars, xtras, $600. 665-4689, after 6 p.m.

MOTORCYCLE: Norton Commando, 750 cc, '70, new tires, Dunstall mufflers, $900. 731-3764.

PIANO: Player, old, nds. fixing, $50; combin. turntbl., plays 16, 12, & 10 in. records, $50. CH 9-4557, after 4 p.m.

OVEN: 40 in. wh. GE 4 burn. range, 3 stor. drawers, $75. 293-8896.

TRAIN SETS: 2 complete cast iron HO, many access., $75. JU 7-5238.

MISC.: Buick auto floor mats, fr. & rear, brown, enw; baby carriage, Park Ave., 2 pc., separable, navy/wh., 10 in. wheels, $40. 212-779-1526.

TIRES: 4 Dunlap radial w/tbles, 155-SR14, $35. 352-7791.

TABLES: One coffee, blond, 2 end, blond, all, $75. CH 9-4052.

SNOWS: Two, A78x13 w/w, for Chev. Vega, on wheels, used less than 1,000 mi., $40. 735-7030.

HOUSE: Uniondale, expanded cape, 30 ft. dormer & 12x34 exten., 4 bdrm., 2 bath, laundry, den, 1½ gar., bsmt., sewers, 100 amp., nr. pkway. & stores, $37,500. IV 5-3041.

HUTCH: Colonial old pine, 18x48x74, $125. 567-4710.

HOUSE: Westbury, cape cod, 3 bdrm., din. rm., firepl., closed in porch, detach. gar., patio, fenced-in yd., $32,500. 334-8262.

CADILLAC: '71 Coupe de Ville, all equip., low mileage, Michelin tires, leather int., $5,300. 427-5058.

TYPEWRITER: Royal elec., 21 in. carriage, $100. D. Kappenberg, Ext. 1617.

TELESCOPE: Sears, 350 pwr. 60 mm Altazimuth mount refractor, $35. 884-5881.

BOAT: '65 Chris Craft, 23 ft. Sea Skiff, repowered in '68, 210 hp Interceptor, sleeps 2, stainless icebox, bow rails, spare prop, 2 anchors, preservers, $1,250 or best offe. IV 5-5887.

JET PUMPS: 4, deep well, $25 or 4 for $80; copper tubing & sweat fittings, reason. 728-4154.

CAMERA: Movie, Kodak Super 8 w/case, $25; camera, Bell & Howell Dial 35, pocket size w/case, inst. kit., $50. 671-5039.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

NICHOLAS DILEO of Plant Protection, Plant 18, died November 11. He was 46 years old and had been with Grumman since 1958. He lived at 72 Combes Ave., Hicksville.

FRANK T. VERO of Product Support-Technical Services, died November 19 at the age of 50. He had been with Grumman since March 1963 and lived at 15 Shirley Ct., Commack.

For Sale

BDRM. SET: Mahog., 1 man's dresser, 1 lady's, 2 mirrors, night tbl. 56 in. wide, bed frame, 1 dresser stool, $175. AN 5-1024.

WINE PRESS: And grape crusher, heavy duty units, 10, 15, & 20 gal. barrels, $50. CH 9-6813.

MOTOR: Sears 7.5 hp water cooled outbd., w/ access., needs carb. work, $50. 757-2212.

HOUSE: Islip Vil., 3 bdrm. ranch on treed ½ acre, Bayberry Pt. S. of Montauk Hwy., mod. kit., appli., lrg. liv. rm, din. area, den w/firepl., lrg. playrm. w/pnld. cath. ceil., deck, 2 full bath, fully lndscpd., schools, $45,000. 581-0333.

HOUSE: Lindenhurst Vil., 7 rm. colonial, 50x100, 2 car gar., low taxes, ask. $27,800. 884-3860, after 5 p.m.

CHEVY: '66 Malibu, 8 cyl. conv., 2-dr., chrome rims. 234-8419, evgs.

CHEVY: '61 Nomad sta. wag., 238,V8, auto., pwr. steer & bks., R&H, passed insp., some rust, $95. 691-6939.

CHEVROLET: '65 Impala sport sedan, 327 eng., positract, auto. trans., radio & rear spkr., $395. 785-1038.

CHEST: Ethan Allen, 1 yr., 3 drawer corner chest, nutmeg fin., formica top, $100. 751-2706.

HUMIDIFIER: Motor pwr. for hot air heat. sys., house up to 3,750 sq. ft., all controls, ducts, wiring, 4 qts. per hr., $30. MO 9-7714, after 6 p.m.

BEDS: Twin, natural ranch oak, like new, $80. OR 1-3417.

MISC.: Walnut coffee tbl., contemp. baby's dressing tbl., early Amer. 587-4420.

TRANSMISSION: '68 Muncie G.M. 4-spd. w/Hurst competition, shifter, $175. 423-9248.

ENGINE: Chevy, assemb. short block, 350 cu. in. + .030 T.R.W. pistons, 12.5 to 1, Storm crank shaft, comp. blueprint. 669-0720, after 6 p.m.

TIRE: New orig. equip., Goodyear pwr. cushion, w/w, poly. cord, 775x14 on '69 Plymouth Satellite wheel, $25. 261-1186.

RIMS: 14 in., Ford, reason. 698-0557.

MATTRESS: 1 Goodyr. full size foam, $10; 2 Serta cotton, single. 271-4486.

LOVE SEAT: Castro conv., new matt., sleeps one, ask. $75. 586-6152.

JACKET: For pants, tailored, w/belt, size 5, burnt orange, fully lined, $30. 921-8194.

COMPONENTS: Stereo, Scott LT-110 FM stereo tuner, Scot LK-72 amp., Rek-o-Kut turntbl. w/arm & Shure mag. cart., 2 shelf size spkrs.. ask. $125. 481-6247.

T-BIRD: Classic, comp. restored mechanically, int. & ext., ask. $2,750. 585-3458, 9-11 p.m.

CORVETTE: '62, red, 4 spd. trans., stock eng., new 2 bbl. carb., 2 new tires, new batt., new paint, firm $1,495. 878-1912.

CAMPER: '69 VW, fully equip., pop up top, tent inc., high perform. eng. modifications, 45,000 mi., $2,000. 423-5849.

DATSUN: 1,200 sedan w/radio, 4 spd. trans., 21,000 mi., $1,250. 265-5298.

SNOWS: 2 Gen. belt. polyglass, H 78-15s (8.55x15) on Chevy rims, used 1 season, 4,000 mi., $50 for both. 567-0123.

MOBILE HOME: '63 Magnolia, 24x54, in Riverhead Trlr. Pk., 3 bdrm., 1½ bath, lrg. liv. rm., lrg. yd., 2 storage sheds. 727-0139.

LAND: New Mexico, tax fee, ½ acre lots in Rio Rancho Estates, Albuquerque, units 13 & 22. 589-4856.

HOUSE: Strathmore East, Stony Brook vic., L shape ranch, 3 bdrm., 2 bath, den w/firepl., oversized plot w/2 car gar., side entry, 5 appli., intercom sys., many xtras, $37,500. 473-6740.

HOUSE: Colonial, 3 bdrm., 1½ bath, 2½ car gar. w/indep. heat, $35,000. AR 1-1273.

REFRIG.: 3.5 cu. ft., pnld., used 4 mos., ask. $55. WA 1-0163.

HOUSE: Bethpage, Wide Inn cape, broadloom liv. rm., full din. rm., 5 bdrm., 2 full bath, firepl. den w/wet bar, full bsmt., 3 car gar., $46,990. WE 1-4168.

HOUSE: Lindenhurst, mother-daugh. cape, 2½ rms. over 4½ rms., bsmt., 73x112 plot. 226-8152, after 7 p.m.

HOUSE: Farmingdale, corner-ranch-field stone & brick, 100x70, redec., 3 bdrm., liv. & din. rms., kit., bath, w-w, 2 stoves & refrig., s/s, wood pnld. fin. bsmt. w/compl. kit. & wet bar, sep. entr. (potential apt. or mother-daugh.), brick patio lndscpd., $36,500. 694-1090.

HOUSE: 3 bdrm., lrg. kit., modern bath, fin. bsmt., gar., Valley Stream, nr. stores & schools, $38,500. 872-3904.

For Sale

HOUSE: Oakdale, 5 bdrm., hi-ranch, din. rm., eat-in-kit., fam. rm., patio, 1½ bath, w-w, s/s, att. gar., appli., $1,050 taxes, $35,000. AN 5-7252.

HOUSE: E. Meadow, mother-daugh., 6 rms. up, 6 down, full bsmt., att. gar., all appli., carpet & pan., $49,500. IV 5-4902.

FURN.: Kit. tbl., 4 chs., bdrm. set, liv. rm. items, redwood set w/umbrella, wndw. air cond., wash. mach. WA 2-4615, after 5 p.m.

MISC.: Birch French Prov. tbl., walnut din., 29x53x 29; 14 ft. Frigidaire refrig., mini freeze, self defost refrig.; 14 ft. Bradfod efig.-feeze w/self defrost; Biltrite hdtp. baby carriage. HT 4-2253.

FURN.: Liv. rm., 3 pc. sect., + chair & tbls., new slip covers, $150. 281-4798.

FORD: '66 Fairlane 500 wag., wh., 38,000 mi., R&H, auto. trans., 2 way rear door, $575. 735-2649.

CHEVROLET: '67 Impala, 396 eng., pwr. steer & bks., mount. snows, 43,000 mi., $875. PR 5-5145.

SAAB: '68 V-4 deluxe, most major components new or rebuilt, Pirelli Cintruratos, AM/FM, hd. clutch & adjust. shocks, Marchal lights, fold-down rear seat. just tuned, xtras, service hist. available, $1,125. J. Wachtel, Ext. 9933.

PONTIAC: '71 Firebird Esprit, auto., xtras, $2,550. 588-4715.

AMERICAN: '64, 4 dr., R&H, auto., $195. GE 7-3979.

TRIUMPH: '71 GT 6, MK 111, AM/FM, radial ply tires, front disc bks., 4 spd. trans., leather int., 16,000 mi., recent tune-up, $2,400. PE 5-4386.

EL CAMINO: '71, 350, 4 spd., pwr. steer & bks., bkt. seats, radio, low mileage. 581-5769, after 6 p.m.

MUSTANG: '65, std. shift, 6 cyl., new tires & bks., ask. $425. 538-0593.

PLYMOUTH: '47, 2 dr., good cond., $300. 567-5268.

FORD: '65 Ranch Wag., 352 eng., good cond., fair body, $250. 286-3611.

CAMERA: Projector & equip., Cine Kodak, model 60, f1.9, case & filter, Ampro proj., case, 8 mm splicer, editor & rewinds, Weston master exp. meter & case, Fed. enlarger, model 250, Argus Jig-A-Matic, new, dryer & print. box, 2-35 mm daylight tanks, etc., $50. 212-739-6061, after 6 p.m.

PROJECTOR: Professional 16 mm Graflex sound, w/ mike, jack, & reels, $175. MO 7-5470.

POOL: 21x4 ft. Doughboy, filter, skimmer, vacuum, ladder, safety cover, $100. IV 1-2144.

JET PUMP: Deming, 1 hp w/tank, gauges, limit switch, reg., you disconnect, $150. 744-9886.

AQUARIUM: 10 gal. for fish, w/wr. Iron stand, 2 pumps, filter & access., $25. 271-7357, after 6 p.m.

FOX TERRIERS: Toy, AKC reg., 7 weeks, $35. JU 1-4408.

FORD: '66, Falcon sta. wag., 6 cyl., auto. trans., tires & snows, new batt. & muffler, R&H. 864-7052, after 5 p.m.

JEEP: '55 sta. wag., 6-226 eng., good cond., $650. 864-3134.

PONTIAC: '64 sta. wag., 9 pass., pwr. steer, air cond., R&H, $300. 822-6514.

PONTIAC: '69 Le Mans, V8, 2 dr. hdtp., console bkt. seats, pwr. disk. bks., air cond., R&H, w/w, vinyl top, 40,000 mi. 732-7604.

VW: '69 Bug, tan, FM radio, $875. WA 1-1916, after 4:30 p.m.

MG: '66 Midget, rebuilt eng., new clutch, bks., 8 wr. wheels, tires, $650. PI 6-6229 after 5 p.m.

PONTIAC: '69 Bonneville, dk. green, vinyl roof, air cond., pwr. steer & bks., tape deck, elec. seats & antenna, AM/FM stereo radio, 4 brand new tires, 25,000 mi. $2,000. 264-3129, 9 a.m.-12n.

DODGE: '67 Polara, 58,000 mi., full pwr., $825. 585-8641.

COUGAR: '67, V8, pwr. steer, 4 w/w, snows on rims, dk. green w/tan int., ask. $1,000. 486-0513, after 5 p.m.

CHEVY II: '62, 6 cyl., auto. trans, 4 brand new tires, R&H, wh. w/blue int.. $150. 798-5636.

MOTORCYCLE: '68 Bridgestone, 90 cc Sport. 427-7735, after 6 p.m.

SNOW TIRES: 7.75x14 w/rims on, used 1 season, $28; 20 in. boy's bicycle, $12. 586-8971.

BOAT: Outbd., 40 hp, '71 Mercury remote controls, two 6 gal. tanks, $450. CH 9-4087.

SNOW TIRES: 560x15, blk. wall, $10/ea. 751-1382, after 7 p.m.

RIMS: VW, fit up to '71, 4 hole, $10/pr. 732-1418.

SNOW TIRES: Two Firestone Town & Country & rims, 650x13, $25. 698-2941.

CAMERA: Bolex H-16 w/pan Cinor zoom lens, filters, leather case, hardly used, $300. 864-3134.

For Sale

CAMERA OUTFIT: Rolleicord IV, Weston meter, flash, access., $68. WE 8-1869.

PUPPIES: Prize, purebred AKC Irish set., gentle, smart, loving, future champs. 543-4281.

PUPPIES: Irish set., AKC, shots, $125 & up. 581-5328.

WEIGHTS: 20 lb. barbell set w/60 lbs. add. weights, 2 hand grips, spring pres, jump rope, $10. 433-3785, after 6 p.m.

SKIS: Head td., 180 cm, cupko bind., & size 6 lady's lace boots, $70. 724-2465, after 6 p.m.

SKI BOOTS: Man's Munari, leather, 1 yr., size 9½ M, $20. MY 2-6520, after 6 p.m.

PROPERTY: Islip Manor, bldg. lot, country setting, city water & gas, nr. stores, school, & tranp., fully lndcpd., 2 car gar., 1695 Rochelle Pkway., Merritt Island, Fla. 32952; also water-front house, Lindenhurst, 3 bdrm., bath, OHW, $32,000, $10,500 down. 226-3138.

HOUSE: Farmingdale, col., 3 bdrm., eat-in-kit., full din. rm., front s/porch, OHW bsbd. heat, screen. b/ patio, fin. bsmt. rm., gar., nr. transpo., school dist. 22, low taxes, fenced, ask. $34,500. CH 9-9313.

HOUSE: Hi ranch, N. Babylon, 6 yr., 100x100, $40,-000. 587-2775, after 5 p.m.

CONDOMINIUM: Ft. Myers, Fla., 5 rm., carp., drapes, extras, conven. to shops & rec., $25,500. 813-481-0895.

CONDOMINIUM: Lido Beach, grd. fl. of 2-story garden apts., elec. heat, pvt. beach & pool, 2 bdrm., eat-in-kit., 1½ bath, air cond., w-w, s/s, all appli., patio, lrg. lndscpd. fenced-in yd., low maint., $33,-000. 431-8077.

MOBILE HOME: Riverhead, 24x46, 3 bdrm., 1½ bath, lrg. liv. rm., din. rm., & kit., fully carp., skirted, new shed, wash. & dry., $15,000 727-8608, after 6:30 p.m.

POOL TABLE: Slate top, 3x6 coin operated, $250. 661-3770.

MISC.: Crib, matt., sheets, $25; carriage & net; car bed; infant seat, diaper bag, botties cups, training seats, step tool, reaon. 676-6042.

CHAIR: One barrel back tapestry, $25; 1 drum tbl., $15. 931-5229.

ACCORDION: Ace, 120 bass, w/case, $250. Melvin Schecker, Ext. 2025.

HAM GEAR: Heath HW-16 novice transceiver w/spkr., crystals & antenna, $95. 751-1256.

BOWLING BALL: Brunswick Starfire, 12 lbs., blue & blk., used ½ season, $15; match. bag. 665-3758, after 6 p.m.

MISC.: Solid birch dresser w/mirror, single bed, w/ matt., $100; 4 wood kit. chairs, reason; GE upright vacuum, $15; 2 daybeds, $40; Macgregor tennis racket w/frame, $10; exercycle, $10. 692-4277.

OLDS: '62, Starfire, met. blue, auto. trans., pwr. steer. & wndws., bkt. sts., console, $200. 368-2939.

FIREBIRD: '67, conv., auto. trans., pwr. steer., console, R&H, w/w., ask. $1,150. 427-0080.

CORVETTE: '64, conv., 327 ovh'd. pwrglide, posi., many new parts, $900. WE 8-8836.

LINCOLN: '65, Continental conv., 4 dr., $750. 798-3333.

OLDS: '64 98 conv., $250. 929-6732.

plane
GRUMMAN
news

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The United Fund—you keep it working for all of Long Island

It's a wonderful world when you're comfortable, with enough to eat, and a strong mind and body. Wonderful when you're "up," and so bleak when you're down. As you read this, you really don't know whether you'll be up or down in the year ahead. Will you care enough to help while you can? The United Fund of Long Island has 96 hospitals and special service agencies that need your support. UFLI needs $4 million this year.

Is this too much to ask of Long Island? The chairman of the 1972 fund drive, John N. Dyer, says, "UFLI has not yet come close to collecting the funds on Long Island that are needed. How many people will die as a result of inadequate care and attention from United Fund charities? The United Fund giving in Milwaukee, you might be interested to know, is $7.70 per capita, and it is $7.40 in New Haven. The United Fund is getting $1.16 per capita on Long Island."

Always a leader

He points out that "Fair Share giving" is a goal "for each person and each company" based on the "average level of giving across the country." Grumman, long a leader in encouraging community giving, makes it easy to participate through payroll deduction. You give cash, or you pledge. Your dollars go right to work.

Once again, there are prizes for a dozen lucky Grumman participants. The list is here. Contributors of a "Fair Share" as suggested on the back of the pledge card will be eligible for the first eight gifts listed. After the drawing of these first eight names, **everyone** who has contributed or pledged will be eligible for the remaining four prizes.

The campaign will be a short one this year. Climb aboard, now, today. Four million dollars is a lot of money. It helps a lot of people, and the United way saves you from a multiplicity of separate demands. (You get a window sticker that proclaims you are a contributor to the United Fund.)

Outstanding care

Do you know that, with the help of the United Fund, one of the outstanding cancer care facilities on Long Island is Nassau Hospital, in Mineola? It is the only one with a combined Radiation Therapy and Nuclear Medicine Department. Nassau Hospital's patients come from all over the Island. The hospital has 420 beds, with 25-30 reserved for cancer treatment. An average of 50 out-patients a day are treated. Only consistent growth, made possible by community support, has allowed the hospital to reach that figure, from an early level of 8-12 patients per day in the late 1950s.

The major item of equipment is a cobalt treatment unit that cost $80,000. It is part of a treatment system that employs computers and closed-circuit television for monitoring the progress of treatment in three separate locations.

According to Dr. Perry Mandel, who directs the Radiation Therapy and Nuclear Medicine Department, the number of cancer patients treated at Nassau Hospital is expected to double within not too many years. And that will require considerable expansion of present facilities, including more equipment and expanded out-patient care.

UF dollars at work

A leader in cancer care capabilities, Nassau Hospital is a good example of the high level of medical care that United Fund dollars help to support on Long Island. It is through your support that such facilities can continue to improve and to enlarge services to meet the growing needs of the future.

The Salvation Army, day care centers, Scouting, homemaker services, associations for retarded children in Nassau and Sufffolk, community services, and mental health agencies are among the recipients of your UF money. Counseling services for children and parents on drug use are being provided through the Family Service Association in Mineola and Jewish Community Services in Rego Park, Far Rockaway, Hempstead, Smithtown, and Mineola.

In the pocket-size Directory of Services enclosed with your United Fund pledge card is a list of those services supported by the United Fund of Long Island. If you're lucky, you won't need it. If you're not, it may help you find the association or group that can help you. The telephone numbers are there.

By giving, you will have helped many others to find a helping hand. It's all a case of "people helping people."

Prize list

1. Sylvania 25-inch color console TV with 90-day free service & 1-year contract on parts
2. Fisher 120-watt amplifier with Garrard turntable and one pair Superdynamic speakers
3. G.E. 25-inch color console TV with service and parts contract
4. RCA 23-inch color console TV with service and parts contract
5. Sylvania stereo console AM-FM
6. G.E. 18 cubic foot frost-free refrigerator
7. G.E. upright freezer
8. G.E. 30-inch electric range
9. G.E. 23-inch black & white table model TV with stand
10. Westinghouse automatic clothes dryer
11. G.E. portable dishwasher
12. G.E. 16-inch black & white TV with stand

What if? All children are not born with perfect bodies. This little girl is getting treatment at L.I. Jewish Hospital's cystic fibrosis clinic. United Fund supports specialized services in this and many other areas. Your money helps your neighbors in emergencies—and it could help you, too. (Photo by Harry Predromides)

Special care. This young patient owes his progress toward normal living to care at St. Charles Hospital, Port Jefferson, one of United Fund related hospitals. (Photo by Fred Annette)

GDS post

Richard Hutchings of Grumman Data Systems has been appointed GDSC Program manager for the Boeing Vertol Utility Tactical Transport Aircraft Systems (UTTAS) Test Program to be conducted at Calverton. He will provide a single point interface with Boeing Computer Services and will insure GDSC's full and timely support in providing data processing services for the test program.

Hutchings is in the Automated Telemetry Station, Plant 7, Ext. 57-273.

Stony Brook offers math studies

The Department of Applied Mathematics and Statistics at the State University of New York at Stony Brook will offer courses part time leading to the Master of Science degree in Applied Mathematics, according to Art Gilmore, director of Training Development for Grumman. Registration will take place on January 11 and 12.

The degree requires completion of 24 credit hours and a thesis. Men and women with biological or social science backgrounds, as well as with engineering or physical science degrees, may apply.

The graduate courses to be given next semester, scheduled no earlier than 4 p.m., include Stochastic Processes, Numerical Analysis II, Operations Research II, Probability and Statistics I, Probability and Statistics II, Markov Processes, Topics in Numerical Analysis.

One of these will be given in Plant 39, the Grumman Aerospace Training Center, 5 - 7 p.m. by Dr. Richard Gran, of Grumman Research, as adjunct professor to S.U.S.B. Which one has not yet been decided.

"This is our first tie-in on an after-hours graduate program at Stony Brook," Gilmore said last week. Arrangements can be made for applicants to sign up on January 11 and 12 at Plant 39.